





Acknowledgement of Country

Investment NSW acknowledges that Aboriginal and Torres Strait Islander peoples are the First Peoples and Traditional Custodians of Australia, and recognises their continued custodianship of Country—land, seas and skies. We acknowledge the diversity of First Nations cultures, histories and peoples, recognise their enduring connection to our State, and we pay our deepest respects to Elders past, present and emerging.



ABOUT THE NSW INNOVATION AND PRODUCTIVITY COUNCIL	7	NEW SOUTH WALES AND	
FOREWORD FROM THE CHAIR	8	AUSTRALIAN TALENT MOVEMENT	26
EXECUTIVE SUMMARY	10	2.1 Australia is a top performer in attracting and growing talent	28
		2.2 Sydney can't rest on its laurels	30
01.		2.3 Australian talent drawn overseas, but most come home	32
WHY TALENT MATTERS	16	2.3.1 Around 20% of NSW	
1.1 The focus of this report	18	graduates move overseas	32
1.2 Research approach	19	 2.3.2 NSW graduates in Marketing, Business, Finance and Economics most likely to travel 2.3.3 Business, Education and Finance professionals commonly 	
1.3 Talent drives productivity and			32
economic growth	21		
1.4 The global fight for talent	22		
1.5 COVID-19 is likely to intensify		based overseas	34
the need for talent	24	2.4 Australia is attractive to entrepreneurs but has lower innovation outputs	36
		2.5 Talent experience of living in Australia	37



_					
C	3			3.3 Personal and social factors	59
		ATIONAL LESSONS ON CTING AND RETAINING TALENT	38	3.3.1 Talent movement influenced by family, stage of life and	
3.1	Global location and economic factors		41	social networks	59
	3.1.1	Political conditions and economic stability influence talent movements	41	3.3.2 Quality of life and safety are important factors in attracting talent	60
	3.1.2	Talent attracts talent	41	_	00
	3.1.3	Places with effective regulations and ease of doing business attract talent	43	3.3.3 Culturally diverse and inclusive places draw talent	61
3.2	Regio	onal and institutional factors	43	3.3.4 Gender equality improves a country's attractiveness	63
	3.2.1	Skilled immigration policies affect talent movements	44	3.3.5 English proficiency attracts diverse talent	64
	3.2.2	Sector-specific visas and residency incentives target skills shortages	46		
	3.2.3	Tax and financial incentives help attract talent	48	O4. OPPORTUNITIES FOR	
	3.2.4	A place's reputation and branding help raise its profile to global talent	49	NSW GOVERNMENT	66
	3.2.5	Informed employers help attract global talent	50	ACKNOWLEDGEMENTS	72
	3.2.6	Talent attracted to places with quality education and training systems	52	APPENDIX 1: RESEARCH APPROACH TO UNDERSTAND	
	3.2.7	International students are a significant source of talent	53	GLOBAL DISTRIBUTION OF NSW DIASPORA	73
	3.2.8	Recognition of qualifications and ease of job transfer make it easier		APPENDIX 2: GLOBAL TALENT METRICS	74
3.2.9	to attract talent 3.2.9 Management practices, culture and	56	APPENDIX 3: SKILLED MIGRATION POLICIES AND INTERNATIONAL		
	networking opportunities influence talent preferences	57	STUDENT VISAS IN AUSTRALIA AND NEW SOUTH WALES	75	



About the NSW Innovation and Productivity Council

The NSW Innovation and Productivity Council (IPC) was established by the Innovation and Productivity Council Act 1996 (the Act). It advises the NSW Government on priorities for innovation-led economic development and productivity.

IPC members are leaders from industry, education, and research sectors. Members are appointed for three-year terms, bringing a rich and diverse range of experience and expertise to the work of the IPC.

The current Council was appointed in 2020 and is chaired by Neville Stevens AO, a former Secretary of the Australian Department of Industry and the Australian Department of Communications, Information Technology and the Arts. The NSW Chief Scientist and Engineer, Professor Hugh Durrant-Whyte and the NSW Chief Economist, Stephen Walters are special advisors to the Council.

IPC publications are independent reports and do not constitute NSW Government policy. This is consistent with the role of the Council and its object under the Act.

Further information is available on the Council's website:

www.investment.nsw.gov.au/ living-working-and-business/nswinnovation-and-productivity-council

Contact

The Council welcomes feedback and enquiries regarding publications, website, and media. To contact the Council secretariat, email: ipc.secretariat@investment.nsw.gov.au

Postal address: NSW Innovation and Productivity Council Secretariat GPO Box 5469, Sydney NSW 2001 Australia

Copyright

© Government of New South Wales 2022

Attributions

This work should be attributed as follows:

Source: NSW Innovation and Productivity Council 2022, *Global talent wars: learning* from locations that attract the best Council Research Paper, Sydney.



Foreword from the Chair, NSW Innovation and Productivity Council

The COVID-19 pandemic has profoundly changed the world in ways we are still trying to understand, completely upending many aspects of business, education, and migration in the process.

Nobody knows what a post-COVID world will look like, but one thing we can be certain of is that the competition for global talent will be fiercer than ever as economies globally transition to a recovery/rebuilding phase.

Why does talent matter so much? Because highly skilled individuals are the very essence of a knowledge economy. They significantly contribute to and impact our ability to innovate, ultimately enhancing productive capacity and capability, driving productivity and economic growth.

I am pleased the IPC's research program is helping to inform NSW Government's approach to building our 'human capital'—by attracting valuable international skills and experience and developing our own home-grown talent.



This report, *Global Talent Wars*, provides the evidence on how to successfully attract global talent to help boost the State's economy. We know that Sydney and New South Wales perform well in global talent attractiveness rankings for liveability, cultural diversity, and educational opportunities. But there is more we can do to compete with the top locations to attract the best and brightest from around the world.

This research builds on the IPC's previous reports including *Remote Working Insights*—focusing on NSW workers' experience and attitudes of remote work and challenges in a new hybrid world of work, and *Let's Collaborate*—providing best practice guidance to overcome challenges for SMEs collaborating with research organisations to drive productivity and innovation.

Together, we hope that the IPC's research will help shape government thinking on the pivotal role they play in supporting a productive workforce today, building a local talent pipeline for the future, and ensuring we attract exceptional global talent for our ongoing prosperity.

This report looks at several cities, regions, and countries that have implemented effective, innovative talent attraction programs to arrive at recommendations that could benefit New South Wales. These are to:

- Embed attracting and retaining global talent in Investment NSW.
- Better promote and support Sydney and New South Wales as a destination for global talent.
- Work with and advocate to the Australian Government on ways of attracting talent to Australia and New South Wales.

The world has changed markedly over the past two years but the competition for talent remains fierce, and yet New South Wales has a great opportunity to attract the world's best and brightest.

Mr Neville Stevens AO

Chair, NSW Innovation and Productivity Council



'Talent, not capital, will be the key factor linking innovation, competitiveness and growth in the 21st century'

Attracting the right people and skills can mean the difference between a business succeeding or failing. Even before the onset of the COVID-19 pandemic, businesses were concerned about the growing war for talent.

But for all the challenges of COVID-19, it has shown what ingenuity, collaboration, and the quick thinking of our talent can achieve. New South Wales has managed the pandemic while keeping the economy moving, people in jobs, and our population safe.

Doing so has set New South Wales up as a magnet for business investment and provides a unique opportunity for attracting the best to grow our economy.

The NSW 2040 Economic Blueprint, NSW Productivity Commissioner's Productivity Green Paper Continuing the productivity conversation and R&D Action Plan are part of the NSW Government's agenda for setting the direction for continued economic success and prosperity in the years ahead.

Together they focus on the fast-growing industries and services where we have a competitive advantage, increasing our innovation through research, and growing more productive and efficient with what we have.

ⁱ World Economic Forum, Human Capital Report 2015, World Economic Forum, Geneva, 2015 http://reports.weforum.org/human-capital-report-2015/



Investment NSW, recently set-up as part of the NSW Government's COVID-19 Recovery Plan, coordinates the State's efforts to attract new international investment and business. It brings together Global NSW (trade and investment), Invest NSW (business growth and investment), Study NSW (international student attraction), and R&D NSW (a new area delivering the R&D Action Plan). Investment NSW will focus on bringing new business and investment to the State. Attracting and retaining global talent is integral to this mission.

This report focuses on 'human capital' to enhance economic performance. Importantly, it does not look at employment, skills, and education policies examined by the NSW 2040 Economic Blueprint and the NSW Productivity Commissioner's Green Paper. Instead, it takes a global outlook, focusing on attracting talent—educated, highly skilled and experienced growth-oriented professionals.

Talented individuals support a dynamic economy and help drive innovation and productivity. The availability of talent plays a significant role in driving the amount of innovation that occurs within an organisation and an economy.



Global talent—whether they are returning Australian expats or highly skilled migrants—bring international experience, cognitive diversity, and new ways of thinking that can help increase innovation and productivity. They also bring international connections, providing opportunities to access new export markets and trade.

Technology and open borders, together with an aging talent pool in many developed countries is seeing a global fight for talent, predominantly fought between the Group of 20 (G20) countries. Not surprisingly, the top locations for talent—such as New York, London, and Silicon Valley—are big cities and economies, with large markets and deep specialisation.

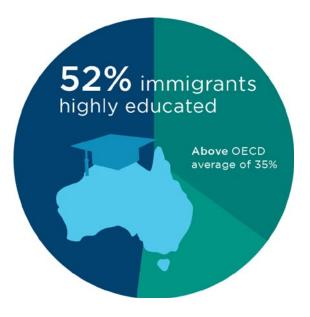
Top talent locations offering better work opportunities will always entice some Australians abroad. For many young Australians it is also a rite of passage to live and work abroad.

One in five people who graduate from an NSW university move overseas—particularly those in marketing, business, finance, and economics—with nearly half returning within five years of leaving. This is not a problem in itself as the overseas experience provides a wide range of benefits creating what is commonly referred to as a 'brain circulation'. Benefits include new or improved ways of working to global networks, offering more opportunities for international collaboration and export connections.

1 in 5 NSW graduates move overseas

Nearly half returning home within 5 years

Australia and New South Wales are in a good position. Australia comes in ninth as the most popular destination worldwide for migrants—with more than half highly educated, well above the OECD average (35%)—and does well in international benchmarks to attract and grow talent. Sydney is Australia's most attractive city for talent attraction and ranks highly for attracting digital workers.



Australia and New South Wales, however, still need to attract global talent despite having a highly educated workforce and being a popular destination for skilled migrants. While many skill shortages are in low and mid-skill jobs, there are also skill shortages in highly skilled professions, such as software engineering, developer programming, data science, cyber security, bio-medical research and development, and engineering and construction management.

New South Wales also has identified industries, research, and emerging areas with competitive specialities where we compete globally—for example quantum computing, or food production and agricultural technology. It is these key growth industries where we can and should be attracting talented individuals with the right skills, experience, and international connections needed to help stimulate these industries to grow.

There are three overarching factors influence the attraction and retention of talent:

Global location and economic factors

Overarching factors that affect attractiveness, such as the city and country's location in the world, the size of its local market and access to international markets, how globally competitive the jobs on offer are, the language spoken, and the socioeconomic and political conditions. These factors are intrinsic to location, but government can still influence.



Regional and institutional factors

Local factors attracting talent such as skilled immigration policies, sector specific visas, tax rates and financial incentives, local education standards, support for international students, workplace cultures, and the global reputation and branding of the place. Government policies at the federal, state, and local level, as well as those made by education providers and industry bodies, can all significantly impact the attraction and retention of talent. These factors are generally more open to influence than economic or personal factors.



Personal and social factors

Individual circumstances, lifestyle preferences and family considerations determine where talent is attracted, including age, gender, culture, language, education, and stage of life.





Some of these factors are subject to policy influence, while others are not. This report focuses on the factors in the remit of the NSW Government that are not addressed by existing NSW Government strategies.

Many countries are actively pursuing policies and programs that increase their attractiveness to global talent. For example, Scotland's 'Join Our Clan' initiative provides comprehensive support for both international talent and employers. While Singapore runs a program that pays for PhD studies abroad but requires students to return home for three years on completion to stem the exodus of highly qualified graduates.

New Zealand's LookSee initiative takes a slightly different approach. giving talented individuals a chance to experience New Zealand first before deciding to relocate. Connect Ireland, on the other hand, engages the Irish public and diaspora as brand ambassadors to market Ireland and gives financial rewards for every new job created over a three-year period.

The NSW Government provides support to individuals and businesses looking to move to New South Wales through the Investment NSW website. The approach, however, to talent attraction is not as strategic and holistic as in other jurisdictions.

Investment NSW provides the opportunity to recognise the economic importance of global talent and clearly signal the State's intent to attract exceptional people who can supercharge our growing industries.

This report recommends the **NSW Government:**

Recommendation 1

Embed attracting and retaining talent in Investment NSW.

- Develop a clear picture of the skills to target.
- · Key industry strategies should identify the skills, experience, and international connections required to support economic growth.
- Deliver programs in key markets to attract global talent to Sydney and New South Wales.
- Develop connections with NSW expatriates, repatriates, and alumni to build momentum.



Recommendation 2

Better promote and support Sydney and New South Wales as a destination for global talent.

To compete in the global war for talent, we need to learn from countries and cities that are actively delivering talent attraction strategies. This learning will help Investment NSW better promote New South Wales as a destination for global talent and actively encourage and support highly skilled migrants to move.



Recommendation 3

Work with and advocate to the Australian Government on ways to attract talent to Australia and New South Wales on policy areas that are a deterrent to global talent.

The NSW economy requires sufficient human capital for continued economic prosperity, particularly in those sectors where we have a comparative advantage and are competing on the global stage. We need to ensure we support not only the development of home-grown talent, but also attract and retain valuable international skills and experience needed for New South Wales to be globally competitive in our key growth industries.





Talent is a shorthand description for highly skilled individuals who are well-educated, growth-orientated, and experienced.

According to the Organisation of Economic and Cooperative Development (OECD), highly skilled talent includes:



1. Highly skilled workers at Masters/PhD level.



2. International students in tertiary education.



3. Foreign entrepreneurs,¹ recognising the importance of startups and investors.



Talented individuals play a significant role in driving an organisation's capacity to innovate and help support productivity and economic growth. The availability of talent plays a significant role in driving the amount of innovation that occurs within an organisation and an economy.

Global talent, whether they are returning Australians or highly skilled migrants, help stimulate the domestic economy. They bring international experience and knowledge, connections, and cognitive diversity, which can increase productivity and innovation. Their global networks also support international collaborations, providing opportunities for growing trade, investment, and business connections.

The NSW 2040 Economic Blueprint² identifies the fundamental importance of talent and highly skilled migrants in supporting the State's economic growth by developing growth industries, supporting the state's emerging centres of technology and innovation, and addressing skill shortages.

"Your most precious possession is not your financial assets. Your most precious possession is the people you have working there, and what they carry around in their heads, and their ability to work together."

Robert Bernard Reich, American economist, professor, author, and political commentator.

1.1 The focus of this report

This report aims to contribute to the discussion on how New South Wales can attract and retain global talent. This includes Australians returning home who have worked overseas, recognising their unique experience and international connections.

It explores the sources and drivers of attracting and retaining talent and what we can learn from international experience by:

- Examining countries, regions, and cities successful in attracting and retaining highly skilled workers.
- Identifying opportunities for New South Wales to improve its ability to attract talent ultimately driving innovation and enhancing our productive capabilities and capacity.

This report focuses on the areas the NSW Government can influence to attract and retain talent, acknowledging there is much that falls outside of their control.

While this report does not analyse skills gaps in New South Wales, it recognises there are known skill shortages in high-skill professions in addition to low and mid-skill jobs. In addition, this report does not analyse Australia's skilled migration system, which the Committee for Economic Development of Australia (CEDA) examines in detail in their recent report 'A good match: Optimising Australia's permanent skilled migration'. CEDA's report makes recommendations for the Australian Government to improve skilled migration policies, including better matching and use of migrant skills.3

The report identifies some of the immediate impacts of the pandemic in attracting and retaining global talent, as well as potential short to medium term implications.



(#) Global talent profile

Quantum computing: Ludwik Kranz, from Poland, now based in Sydney

Ludwik Kranz is a physicist specialising in nanotechnology, quantum computing and atomic-scale engineering. Ludwik is now working jointly with the team at Silicon Quantum Computing and at ARC Centre of Excellence for Quantum Computation and Communication Technology at the University of New South Wales. Ludwik feels privileged to be surrounded by talented colleagues and to have exciting career opportunities in such a fast growing area. He enjoys an active lifestyle among Sydney's beautiful beaches.

Case study republished from the Australian Government's Global Business and Talent Attraction Taskforce https://www.globalaustralia.gov.au/recent-arrivals



Global talent profileRenewable energy:Carlo Frigerio, from Italy, now based in Sydney

Carlo Frigerio has over 15 years' experience working in the clean energy sector. He is currently the Managing Director for Fotowatio Renewable Ventures and is working to create a more resilient energy system in Australia; one that has zero carbon emissions, reduced costs for customers, and that also creates jobs for Australians.

Case study republished from the Australian Government's Global Business and Talent Attraction Taskforce https://www.globalaustralia.gov.au/recent-arrivals

1.2 Research approach

To supplement publicly available reports and data, the IPC partnered with the CSIRO's Data61 to analyse LinkedIn data to gain a better understanding of graduate movements. Although there are difficulties in distinguishing between graduates who move overseas for work and international students returning home, this data helps paint the global movement of New South Wales graduates.

The IPC also partnered with the United States Studies Centre (USSC), not-for-profit organisation Advance.org that connects Australian diaspora overseas, and international recruitment company Indeed, to build on the

current state of talent in New South Wales and Australia. Together with these partners, the IPC undertook new research on the NSW experience. This included surveys of diaspora and recruitment agencies, and case studies from a spread of industry sectors and demographics. This new research tapped into the breadth of the NSW diaspora, including graduates living overseas, those who have returned to New South Wales with global experience and know-how, overseas-born graduates of NSW universities who settled in New South Wales, as well as those who returned overseas.



1.3 Talent drives productivity and economic growth

A survey of global CEOs found that 'failure to attract and retain top talent' was their number-one issue in 2016, ahead of economic growth. Attracting talent was again cited as the top internal issue in 2020 for CEOs and other C-Suite executives globally, regardless of a firm's location or size.⁴

Leading companies recognise that high performing staff are integral to business success. Top talent can drive innovation and are significantly more productive. A McKinsey study found that high performers can be up to 800% more productive than average performers, depending on the complexity of the job. The productivity gap between poor and high performers increases with a job's complexity.⁵

The Harvard Business Review also reports that the best companies are 20% more productive than the rest, "due to the way they acquire, develop, team, and lead scarce, difference-making talent." ⁶



"It's really about unlocking global talent to help Australia build globally successful businesses and drive up prosperity into the future... The best workers globally will be thinking about Australia as right at the top of the list of places they might want to move to."

Alex McCauley, Chief Executive Officer, StartUp Aus.⁷

1.4 The global fight for talent

Technology and open borders (COVID-19 aside) are enabling talent to move more easily to seek better career opportunities and quality of life.

At the same time, developed countries are experiencing talent deficits, which are only increasing. This is partly due to an aging talent pool in developed countries like Japan, Taiwan, and Italy, compared with a younger, rapidly growing talent pool in developing countries such as India and Brazil that is growing faster than available jobs.8

"Over the course of the past two years, more than half of new technical employees at Atlassian have picked up and moved to Sydney from countries around the world."

Devin Rogozinski, Talent Brand Global Lead, Atlassian

This trend is creating a global mismatch of talent between countries where it is most needed, and those with a surplus of highly educated, skilled workers. This tension is likely to grow, increasing international competition for talent.9

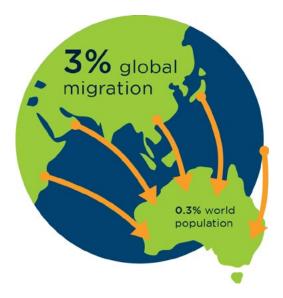
The global fight for talent is largely fought between the Group of 20 (G20) countries, which account for a significant share of overall movements.10 The United States (US), the United Kingdom (UK), Canada, and Australia, attracted nearly 70% of highly skilled migrants to the OECD in 2010.11 The US alone has historically hosted close to half of all highly skilled migrants to the OECD and one-third of highly skilled migrants worldwide.12

The top global locations for attracting talent (such as New York, London, Silicon Valley) are big cities and economies with large markets and deep specialisation.

These places tend to have high levels of agglomeration and clusters of technology and knowledge production for specialised activities. For example, more than half of the high skilled technology workers and entrepreneurs in Silicon Valley are foreign-born.¹³

Patent records show the US receives a significant net surplus of inventors and entrepreneurs from overseas, with China and India being the major supplying countries. The US also dominates its competitors in Canada and the UK. Despite being attractive locations, these countries have large inventor emigration rates, usually to the US.14

Australia punches above its weight in the global fight for talent, coming ninth as the most popular destination worldwide for migrants. It receives around 3%" of global migration flows, despite only accounting for 0.3% of the global population.^{15,16} This strong performance is discussed in more detail in Section 2.1 Australia is a top performer in attracting and growing talent.



ii Calculated by dividing Australia's average annual migrant intake (189,000) by the average annual rise in global migration (5,600,000). Sources: ABS 2020, UN 2019.

Similarly, highly skilled NSW residents are attracted to other global locations for better job prospects, experience or lifestyle—and this is ok. In many cases, these highly skilled individuals eventually return home, bringing with them more developed skills, and international connections. This international experience benefits NSW employers, and ultimately the local economy, through innovative ways of working and global connections that support exports and international collaboration.¹⁷

Finally, it is important to recognise that Australia's economy, and New South Wales more specifically, does not have the market size or scale to support the same level of specialisation as much larger economies (such as the US), which will always attract global talent.

To compete globally for talent, we need to deliberately target people in the State's most competitive industries, and where there are identified skill shortages. Going after these specific skills, experience, and international connections will help our most promising industries grow. This is discussed further in Chapter 3: International lessons for attracting and retaining talent.

"As time goes on—and the world grows ever more competitive— human capital will become an even more important factor to business success."

Andrew Ferrier, Chief Executive Officer, Fonterra Co-operative Group. 18



"I am excited for the challenge of diving into the Australian tech startup community and utilising my US and international experience to add as much value as possible to the Australian ecosystem."

Global talent profile

Digital start-up: **Kelsey Doorey**, from the United States

Kelsey Doorey is a tech startup growth specialist with over ten years' experience in the US market, with startups including two now unicorns, an IPO, an acquisition and over \$1 billion USD capital raised. She also raised over \$10 million USD while running her own startup from top investors and venture capitalists across the world.

After five years building her own business, *Vow To Be Chic*, which was the first and only company to rent designer bridesmaid dresses, Kelsey now provides strategic start-up advice to C-suite clients. Kelsey has worked on a Start-up 101 playbook for a top Australian venture capital firm to help local Australian start-ups accelerate their growth and avoid common mistakes, learning from her own experiences and those of other start-up founders.

Case study republished from the Australian Government's Global Business and Talent Attraction Taskforce https://www.globalaustralia.gov.au/recent-arrivals

1.5 COVID-19 is likely to intensify the need for talent

The impact of the COVID-19 pandemic on global talent flows has been significant. It had an immediate impact on mobility, reducing migration, business travel, and flows of international students.

"It is the perfect time to attract key talent to Australia ... In some cases, it would be like pushing against an open door."

Anthony Eisen, Co-Founder, Afterpay¹⁹

More remote working has led to the value of the 'office' being re-evaluated, and questions raised about the future shape of cities. Modelling by Victoria University found that workers will continue to commute less often and be prepared to commute further post-pandemic. This will increase urban sprawl, while at the same time growing the number of organisations in CBDs as they become more affordable.²⁰

This broad, global move towards remote working will also see more opportunities for talent to work in one country and live in another country entirely, potentially widening the talent pool for employers.²¹

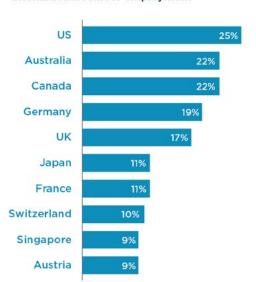
A recent survey of almost 209,000 workers in 190 countries by Boston Consulting Group found a decrease in the willingness to work abroad was largely influenced by the COVID-19 pandemic and opportunities to work remotely. In 2014 almost 64% of people were working abroad or willing to move abroad for work, compared to just 50% of people in 2020.22 Interestingly, the survey also found Australia is an attractive destination for international remote work, in second place behind the US.

Another significant impact of COVID-19 is the change in what and how work is performed, forcing companies to rapidly pivot to survive. General Motors, for example, updated their factory machinery to produce ventilators from car parts.²³ Closer to home, Ampcontrol, an electrical engineering company based in Newcastle, quickly pivoted to design and produce ventilators for the first time.²⁴ In response to this situation, cross-industry and business talent exchanges are starting to emerge.

While it is very difficult to predict the long-term outcomes from COVID-19 on the global labour market, it does not change the need for the very best talent. If anything, the current war for talent will intensify as keeping and attracting global talent will help accelerate countries' economic recoveries.

PERCENTAGE OF RESPONDENTS WHO SAY THE COUNTRY APPEALS TO THEM

As a destination for international remote employment



As a place to move to for work



Source: Kovács-Ondrejkovic, O., Strack, R., Baier, J., Antebi, P., Kavanagh, K., López Gobernado, A. (2021). "Decoding Global Talent, Onsite and Virtual". Boston Consulting Group

Note: "International remote employment" is defined as being employed by a foreign company that has no physical presence in one's country



(#) Global talent profile

Quantum Information, Data Science, Advanced Digital and ICT: **Kristi Riordan**, from the United States

Kristi is a business growth specialist and has been creating and leading innovative, tech-enabled organisations for 15 years. This includes roles in cyber security, data science and software engineering.

"I look forward to contributing to the future of Australia, growing the tech economy here and being an advocate for the country abroad."

Case study republished from the Australian Government's Global Business and Talent Attraction Taskforce https://www.globalaustralia.gov.au/recent-arrivals



New South Wales and Australian talent movement

There are four key international benchmarks on talent attraction and retention:

- OECD Indicators of Talent Attractiveness
- Global Talent Competitiveness Index (GTCI)
- Institute for Management Development (IMD) World Talent Ranking, and
- the Global Human Capital Report.

None of them provide data down to the New South Wales state level.

Each international benchmark uses a variety of data sources, such as surveys and quantitative data, to measure and analyse. Because of this, each benchmark has a slightly different approach and focus to measuring and assessing talent attractiveness (see Appendix 1 for more information on each of the benchmarks).

Broadly, the top performers are richer countries that have a longstanding commitment to their citizen's educational attainment and deploy a broad share of their workforce in skill-intensive occupations across a range of sectors.



Nordic countries often take the top spots. They perform strongly in generating home-grown talent, safety, health, and family life, and in providing positive career opportunities. Not being English-speaking countries, however, makes them less attractive to global talent.

Australia ranks within the top 20 countries for talent attractiveness across all key international benchmarks and performs well overall in attracting and retaining talent. At a city level, Sydney is a top performer for attracting talent.

The global rankings identify some areas where Australia's performance can be improved. These include more public measures to increase the percentage of graduates in science, better matching of labour market demand to workforce supply, skills and apprenticeships, cost of living, and the effective personal income tax rate.^{25,26} Australia also has high underemployment in the 15-24 age group, ranking 80 out of 130 countries.²⁷

These issues cut across both the Commonwealth and State Governments. Issues such as tax rates are managed at the Commonwealth level, while the NSW Government has more influence on skills and education. At the State level, a number of these policies issues are addressed in the NSW Productivity Commission's recently released Productivity Green Paper which recommends a number of actions to deliver best practice teaching and a modern Vocational Education and Training (VET) system to deliver the skills we need.28

Factors that influence the decisions of global talent, where they choose to locate, and issues that are open to policy influence are discussed in detail in Chapter 3: International lessons for attracting and retaining talent.

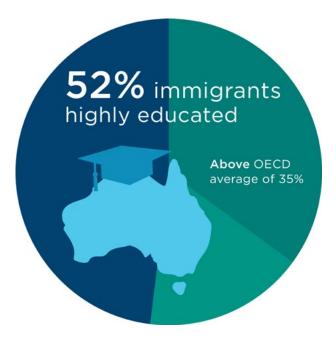
2.1 Australia is a top performer in attracting and growing talent

Australia is ranked 11 out of 134 countries by the 2021 Global Talent Competitiveness Index²⁹ and is the top OECD performer for attracting highly qualified workers (with a masters or PhD) out of 35 countries, beating the US, Sweden, Switzerland, New Zealand, and Canada.³⁰

Australia is ranked 13 out of 63 countries by the IMD, performing well for quality of life, remuneration in service professions, foreign highly skilled personnel, and the educational system. It is also a net importer of talent.31

Migration data supports this, with Australia ranked fourth of all OECD nations for the highest proportion of highly educated immigrants. More than half (52%) of Australia's immigrants are highly educated (have some level of tertiary education); well above the OECD wide figure of 35%. Other nations doing well in this measure include Canada, Israel, and Poland. Australia also has a smaller proportion of immigrants with a 'low' level of education, at 16%, which is below the OECD-wide figure of 27%.32

Australia's comparatively high percentage of skilled migrants is particularly noticeable in some professions. A 2011 study found immigrants accounted for 45% of scientists engaged in research in Australia, compared to 57% in Switzerland (the highest of 16 countries studied), and 38% in the US.33





Global talent profile

MedTech: Dr Kathleen Bashant Dav. from the United States

Dr Kathleen Bashant Day has managed a research collaboration between top scientists at the National Institutes of Health (USA), Imperial College London, the University of Cambridge, and industry partners at the ZellMechanik Dresden (Germany).

Since moving to Sydney, Kathleen has joined an early stage biotechnology startup where she helped establish their scientific processes and now leads a rapidly growing technical team.

"Australia's R&D tax offset program and other incentives make it a great location to launch a biotechnology start-up."

Case study republished from the Australian Government's Global Business and Talent Attraction Taskforce https://www.globalaustralia.gov.au/recent-arrivals





Global talent profile Balder Onarheim, innovator from Denmark

Balder Onarheim is the founder and CEO of PlatoScience, a Copenhagen based neurostimulation company, which he is bringing to Australia. With PlatoScience Balder has created the headset product PlatoWork, which stimulates specific brain regions while you work. Balder is already looking for new employees and partnerships in Australia, to keep growing PlatoScience in the Southern Hemisphere.

"I'm very excited to bring PlatoScience to Australia. The opportunities for growth here are endless and it truly is a lifestyle destination! The visa process was seamless, and the support Australia provided has been excellent."

Case study republished from the Australian Government's Global Business and Talent Attraction Taskforce https://www.globalaustralia.gov.au/recent-arrivals

While we perform well at attracting migrants, we need to ensure that we best utilise and benefit from their skills. A recent report by CEDA found nearly one in four permanent skilled migrants in Australia work in a job beneath their skill level.³⁴

Australia's strong performance in attracting talent comes from its social inclusiveness, tolerance of immigrants, excellent skills environment, prospects (including the economic situation and immigration permanency), and quality of life.³⁵ The degree of diversity and inclusiveness of a country is cited

as increasingly important for talent mobility, outweighing high earnings or strong economies.³⁶ Australia is attractive in this regard, with around a third of Australia's population foreign-born, contributing significantly to its diversity.

Australia is also a top performer in growing the talent base, ranked 8 out of 134 countries by the 2021 Global Talent Competitiveness Index behind the US, Singapore, Switzerland, Netherlands, Sweden, UK, and Canada.³⁷

2.2 Sydney can't rest on its laurels

Sydney is particularly attractive for digital workers, ranking ninth worldwide in a global study of more than 28,000 digital experts' willingness to move to a city for work. London, New York, and Berlin took out top spots, but Sydney was only one place behind Paris and ahead of San Francisco and Toronto, because of a diversity of workplace options, high-quality working spaces, and high average salaries relative to other cities.38

However, Sydney cannot afford to rest on its laurels. While Sydney has historically been considered Australia's most attractive city for talent, other Australian capital cities are knocking on the door.

Sydney and Melbourne both saw a drop in rankings in the 2021 Global Cities Talent Competitiveness Index, however Melbourne edged out Sydney by one place to become the top ranked Australian city for the first time. Sydney slipped in the rankings from 11 in 2020 to 29 in 2021, while Melbourne slipped from 21 in 2020 to 28 in 2021. Brisbane on the other hand, climbed the rankings to 34 in 2021 (up from 43 in 2020).39,40

Sydney received lower scores when compared to other international cities on metrics for Foreign Direct Investment projects, internet speed, traffic travel times, and patent applications.41

Cost of living is also an important consideration for prospective migrants. Mercer's annual Cost of Living Survey ranked Sydney 50 out of 209 cities.⁴² The survey measures the comparative cost of housing, transportation, food, clothing, household goods, and entertainment.43 Key challenges for living in Australia include poor travel and transportation, high costs of living, and less disposable income.44

Childcare costs in Australia are also cited as being a consideration, as they are relatively high compared with many OECD countries, making up to 18% of a household income in 2019, while the OECD average is 10%.45 Only the UK, New Zealand, Switzerland, and Ireland have higher childcare costs (above 20% of household income).46

By contrast, the costs of childcare in Norway and Sweden are well below the OECD average and make up 6% and 4% respectively of average household income.⁴⁷ Both Norway and Sweden have high levels of government expenditure on childcare. Sweden's maximum fee policy is designed to ensure low income families pay no fees, while fees for high income households are capped, so that even the wealthiest families pay very little.48



(#) Global talent profile

MedTech and AgTech: Dr Ella Hodder, from United Kingdom, now based in Sydney

Dr Ella Hodder has worked in both the MedTech and AgTech industries, with a strong background in biofuels and biopharmaceuticals. Over the course of her career thus far, Dr Hodder has demonstrated an exceptional contribution to the scientific community.

"Australia is a trusted market for clinical research and trials with strong intellectual property laws and diverse production environments."

Case study republished from the Australian Government's Global Business and Talent Attraction Taskforce https://www.globalaustralia.gov.au/recent-arrivals

iii Note this is based on the percentage of household income spent on childcare for a couple on an average wage according to the OECD's Net Childcare Costs data for 2019.



2.3 Australian talent drawn overseas, but most come home

For many young Australians it is a rite of passage to live and work abroad. There are no official figures for the size of the Australian diaspora, iv but it is estimated that by 2030 there will be 1.3 million Australians working overseas, with a third of them in Asia.

One in five people who graduated from a NSW university moved overseas, with nearly half returning home within five years of leaving. An additional 15% return after 15 years, while the remainder take 40 years or more to return home, or never return at all.49



Nearly half returning home within 5 years

This is not a problem in itself as the overseas experience provides a wide range of benefits creating what is commonly referred to as a 'brain circulation'. Benefits include new or improved ways of working to global networks, offering more opportunities for international collaboration and export connections.

Reasons for leaving Australia include:

- better job opportunities (including prospects not available at home)
- · geographic isolation which can limit access to global networks, and
- a lack of entrepreneurial drive and support for innovation and commercialisation

compared to what is on offer in other destinations including the US, Europe, or Asia.50

Around 20% of **NSW** graduates move overseas

Based on LinkedIn data in April 2018. 60% of NSW university alumni stayed in New South Wales, while 22.5% went overseas, with the remainder moving interstate.51 The US is the top overseas destination for NSW university graduates, followed by the UK, Singapore, China, and Hong Kong.52 This data, however, includes both international and domestic students. making it difficult to distinguish those returning home.

2.3.2

NSW graduates in Marketing, Business, **Finance and Economics** most likely to travel

NSW graduates in Marketing, Business Administration, Finance, and Economics are most likely to go overseas, while graduates in Medicine, Science, and Civil Engineering are the least likely to travel (Figure 1).53

"People want to live and work somewhere where they feel satisfied creatively and technically."

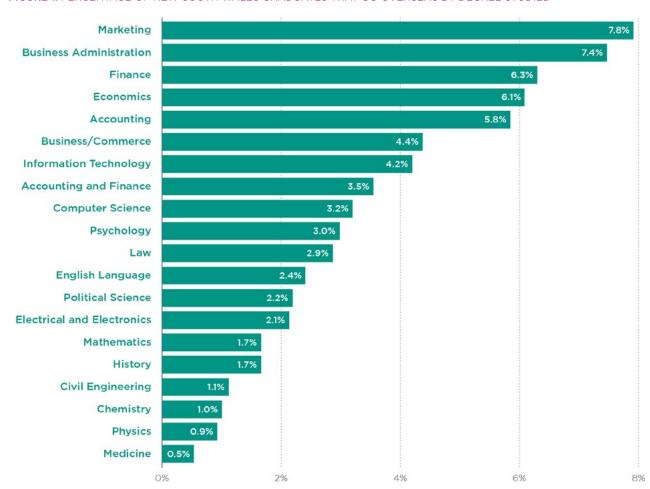
Senior Management, leading visual effects technology company. Living in Sydney, spent three years in Canada.

^{iv} The term 'diaspora' refers to a group of people from a nation or homeland that live in a multitude of places across the world.

Top 10 overseas destinations for NSW university graduates^v



FIGURE 1: PERCENTAGE OF NEW SOUTH WALES GRADUATES THAT GO OVERSEAS BY DEGREE STUDIED⁵⁴



Source: CSIRO Data61 Ribit.net analysis of LinkedIn Data, August 2018. Note not normalised for count of students enrolled by subject.

 $^{^{\}rm v}$ At April 2018, 228,227 graduates (22.5%) are overseas from a total of 1,039,735 NSW university alumni.

2.3.3

Business, Education and Finance professionals commonly based **overseas**

The top five most common professions for NSW graduates based overseas are business development, sales, operations, education, and finance (Figure 2).55

The much higher percentage of NSW business development graduates overseas may include a significant proportion of international students returning to their country of origin, with management and commerce studied by 51% of overseas students in Australia in 2016.56

Reflecting the most common professions of NSW graduates working overseas, the top employers of the State's graduates are heavily weighted towards financial, accounting, and IT companies in the LinkedIn sample.57

"Australia lacks the opportunity. There isn't the depth in my field that there is in the US, and that's why I'm here."

CEO New York-based Investment Advisory Firm, Australian expatriate living in the United States for the past 45 years.

FIGURE 2: TOP TEN PROFESSIONS FOR NEW SOUTH WALES GRADUATES OVERSEAS⁵⁸



6.5%



8.9%





8.5%

Finance 7.1%



5.6%



8 Engineering

5.5%



Management

4.5%



10 Research

4.4%

Source: CSIRO Data61 Ribit.net analysis of LinkedIn Data, August 2018.



2.4 Australia is attractive to entrepreneurs but has lower innovation outputs

Australia performs well for attracting entrepreneurs in the OECD behind the US, Canada, Ireland, New Zealand, and Switzerland. These countries demonstrate an openness to trade, and ease of doing business.⁵⁹ In contrast, Australia's performance in new product entrepreneurship activity and innovation outputs is disappointing, ranking 31 and 30 respectively out of 134 countries according to the 2021 Global Talent Competitiveness Index.60

Anecdotal evidence also suggests the financial requirements of Australia's entrepreneurship visa make it challenging to obtainrequiring proof of a company having at least \$200,000 in funding.61 In comparison, countries that perform well in attracting entrepreneurs, such as Canada,62 do not require proof of funding. Instead they require either support from recognised organisations, or proof of the project's potential to generate turnover within a certain timeframe. South Australia is trialling a similar entrepreneurial visa approach until November 2021 that allows applicants to have their proposals vetted by state or federal government entities without an investment commitment.



"I am excited to be working on world-leading, cutting edge technology."

(IIII) Global talent profile

Advanced Digital, Data Science and ICT: Mauricio Wolff, from Brazil now based in Sydney

Mauricio is now in Sydney working for Atlassian as an expert in Human-Centred Design and Design Thinking. Mauricio is passionate about using data to creative positive user experiences and has designed sites, apps and online optimisation strategies for high end IT firms. Mauricio has also started an initiative to help small business owners in Australia to have a free online presence during the COVID-19 pandemic.

Case study republished from the Australian Government's Global Business and Talent Attraction Taskforce https://www.globalaustralia.gov.au/recent-arrivals

2.5 Talent experience of living in Australia is above average

The Expat Insider 2019 survey ranked destinations based on 43 factors influencing experiences living in a foreign country, including quality of life, ease of settling in, working abroad, family life, and personal finance.⁶³ Australia ranked 17 out of 64 countries and performed well in quality of life, leisure options, family wellbeing, educational options and availability, and ease of settling in.

The survey also found that Australians have a sense of humour, a strong sense of camaraderie, and an indifference to an individual's socioeconomic status, evidenced by our high global ranking for social openness, and social mobility.⁶⁴

"I love Australia, I love Sydney, I love the people, the weather, and the lifestyle."

Producer, American expatriate living in Australia since 2010.



International lessons on attracting and retaining talent

An exodus of highly skilled workers from a location raises concerns over 'brain drain'.

For Australia though, most highly skilled emigrants that leave for international experience eventually return home, bringing with them more developed skills and connections to global sources of knowledge, capital, and goods, otherwise known as 'brain circulation'. This shift in perspective sees talent leaving Australia not as a 'brain drain' but instead as a 'brains trust' that will ultimately benefit the Australian economy in multiple ways.



Australia and New South Wales, however, still need to attract global talent despite having a highly educated workforce and being a popular destination for skilled migrants.

While many skill shortages are in low and mid-skill jobs, there are also skill shortages in highly skilled professions, such as software engineering, developer programming, data science, cyber security, bio-medical research and development, and engineering and construction management. There are also shortages of registered nurses, particularly in aged care, and critical care and emergency nurses.⁶⁵

Highly talented individuals, with cutting-edge skills and entrepreneurial ideas can also contribute to our economy by driving innovation and supporting the creation of local jobs.⁶⁶

Talent attraction programs are not exclusive to countries that are struggling economically or lacking foreign capital. Highly developed nations design and implement talent attraction programs for the same reasons small developing nations do—to attract foreign capital, skills, and knowledge to stimulate their domestic economies.⁶⁷

Nineteen of the G20 nations offer a mechanism to attract inward investment in exchange for residence rights. Sixty percent of EU member states also offer investment migration programs.⁶⁸ These locations support highly skilled migrants by assisting them to set up businesses and access resources, increasing the visibility of innovation within the region, and tackling migration and investment barriers.⁶⁹

There are three levels of influence to consider when understanding why talent is drawn to specific locations:

- 1. Global location and economic factors—overarching factors that attract talent, such as globally competitive jobs, market size and scale, location, economic culture, and socioeconomic and political conditions.
- 2. Regional and institutional factors—specific, often more regional factors such as visas, local education standards, and culture.
- 3. Personal and social factorslifestyle preferences and family considerations.

Some of these factors are subject to policy influence, others are not. For example, our geographic location, time zone, market size, and family considerations are outside government influence, while visas, educational systems, and recognition of qualifications can be influenced.

With the changes to where people work in response to the pandemic, it will be interesting to see if this enables talent to live and work in different places more permanently, how this will impact global talent movement, and if lifestyle factors become more important. Depending on the economic outcomes of the post-COVID recovery, there may also be more talent available if companies are forced to scale back or close.

This chapter explores each level of influence in the New South Wales context and considers what we can learn from international experience. Insights are also drawn from the USSC case studies that explored the experiences of returned expatriate Australians and from a study by Indeed and Advance.org that explored the attitudes of business and recruitment decision-makers towards expatriate Australians.









3.1 Global location and economic factors

There are overarching factors that can affect attractiveness, such as global location of the city or country, the size of its local market and access to international markets, how globally competitive the jobs on offer are, language spoken, and socioeconomic and political conditions. While these factors are often intrinsic to the location, it is important to consider a location's natural competitive advantages and the areas that can be influenced.

3.1.1

Political conditions and economic stability influence talent movements

The future economic situation of a country is a powerful motivator for talent when deciding whether to relocate to a new country or remain in their destination country. Countries with stable, transparent political conditions foster environments conducive to business and innovation. On the other hand, countries with oppressive regimes and unstable governments are more likely to impose red tape, restrict trade, and limit business opportunities.⁷⁰

Countries with uncertain political situations are also less attractive to global talent and foreign direct investment. For example, the protests in Hong Kong that erupted over the proposed Fugitive Offenders Amendment Bill in 2019 not only impacted the economy with the largest decline in GDP in a decade, but its attractiveness to foreign businesses and talent.71 Workers are weighing up the economic and stability risks and considering other Asian bases such as Singapore with its stable government, attractive tax rates, and global connectivity.⁷²

Related to political stability is the level of corruption and trust in institutions, especially the judiciary, and the extent of law and order. Unstable political conditions and a concentration of power can lead to corruption and political unrest, both of which negatively impact foreign investment, and in turn impact economic growth and a country's global attractiveness for talent.⁷³

3.1.2

Talent attracts talent

Higher wages provide a strong pull for talent, particularly from developing countries, with wages in high-income countries around 70 times higher than in low-income countries.⁷⁴

Globally competitive jobs, however, are not just about higher wages. Highly skilled people are attracted to places that offer career opportunities and the ability to learn, grow, and network. They value countries with high economic growth over places that offer high incomes but are experiencing economic decline.

Talented people are attracted by other talented people.
High-skilled occupations, in fact, display agglomeration effects.
Individual productivity is boosted by synergies with other skilled workers, thereby generating the multiplier effect that is at the base of innovation breakthroughs and development.

Talent is also attracted to locations that actively support innovation through strong networks with universities and research institutions that have embedded a culture of collaboration, ongoing investment in research and commercialisation, and an overarching system of entrepreneurship.

The availability of globally competitive jobs in a location is influenced by the size and scale of its industries, and the extent to which there is global competition in those fields. For example, New South Wales has a globally competitive quantum computing research industry which attracts talent from around the world.

Multinational companies can also play a central role in attracting and rotating highly skilled and emerging talent throughout different countries.⁷⁷

The **US** is a good example of a country that attracts significant global talent, hosting close to half of all highly skilled migrants to the OECD and one-third of highly skilled migrants worldwide.⁷⁸ This talent tends to be concentrated in select cities where talent is attracted to other talent.

In 2013, Southern California, Silicon Valley, and New York City combined hosted about one-eighth of the total STEM employment (that is, jobs with a high component of science, technology, engineering, and mathematics). The percentage of foreign-born STEM workers remains very high in numerous cities, particularly Silicon Valley where 59% of STEM workers in 2018 were foreign-born.

This trend is slightly less pronounced but still significant in other key innovation locations including New York City (46% of STEM workers are foreign-born), Southern California (45%), Seattle (42%), Boston (34%), and Austin (31%).⁷⁹

Box 1

Talent Boost Finland

The Finnish Government launched Talent Boost in 2017 to attract "international specialists" who are crucial to the growth and internationalisation of Finnish companies. The program aims to improve the country's 'international working environment' to make it more attractive for global talent to settle long-term, preventing brain drain.⁸⁰

The program helps Finnish companies looking to hire international experts and professionals, including foreign graduates and expats with international experience, and provides funding to support the growth, internationalisation, and innovation activities of Finnish companies.⁸¹

The Talent Explorer funding helps small to medium-sized businesses across all sectors looking for new export markets for a product, service, or business model by hiring talent—including foreign graduates from Finnish universities—to support international expansion and growth. The funding covers 50% of the expert's employment costs (including potential travel costs) for the first six to 12 months, up to a maximum of €20,000.82



3.1.3

Places with effective regulations and ease of doing business attract talent

Effective regulations make it easier to start a new business and provide opportunities for existing businesses to expand, invest, and create new jobs. Inefficient regulation, on the other hand, can stifle innovation and burden businesses with unnecessary processes. The NSW Productivity Commission highlighted this in its recently released Productivity Green Paper.⁸³ Research shows a causal relationship between effective regulation and a country's GDP.⁸⁴

Countries with effective regulations and greater ease of doing business have higher levels of entrepreneurial activity, which in turn generate better employment opportunities, higher government tax revenues, and improved personal incomes.

What does this all mean for attracting and retaining talent? Making it easier to start and run a business is attractive to global talent, particularly entrepreneurs or startups. For example, the World Bank's Doing Business 2020 study, which compares the ease of doing business in international economies, found that it takes almost six times as long on average to start a business in the bottom 50 ranked countries compared with those in the top 20 (Australia is ranked 14), while commercial dispute resolutions take around a year longer (2.1 years, compared to 1.1 years in the top 20).85

More than half of the top-ranked countries measured by the World Bank for ease of doing business are from OECD high-income countries. Beconomies that score highest on the ease of doing business share several common features, including the widespread use of electronic systems, robust and transparent business regulations, and quality judicial processes. Beconomies

3.2 Regional and institutional factors

Decisions made by governments at the federal, state, and local level, as well as those made by education providers and industry bodies, can significantly impact the attraction and retention of highly skilled talent. This is especially true for issues such as visas, taxes and financial incentives, education, training, and recognition of overseas qualifications.

The quality of public and private services, such as the standard of the health system and quality of education, are also fundamental considerations for prospective migrants.⁸⁸

Given that institutional policy decisions can have a direct impact, these factors are generally more flexible and open to influence than economic or environmental factors or factors related to personal circumstances.

3 2 1

Skilled immigration policies affect talent movements

The attraction of popular work destinations such as the US, UK, and Australia can quickly shift in response to world events, regulatory or political changes such as tightened immigration policies, Brexit, or COVID-19.

The pandemic's effect on skilled migration

As a result of COVID-19, Australian net overseas migration (the difference between migrant arrivals in Australia and departures from Australia) fell significantly in 2019-20 by almost a quarter (23.7% less than the previous year).89 Net overseas migration fell even further in 2020-21 with a net 96,600 people leaving Australiathe biggest exodus since World War I. Negative levels are also forecast in 2021-22 before an expected gradual return to pre-COVID levels by 2023-24. This is due to migrants and international students leaving the country and new temporary visa holders being barred from entering under COVID-19 border restrictions. Australia's fertility rate is also expected to drop to 1.58 during the 2021-22 financial year, down significantly from the 1.9 predicted in the 2019-20 budget.90,91

Overseas migration usually accounts for almost two-thirds of Australia's population growth, but this dropped to around 0.2% in 2020-21, the slowest growth in more than a century.92 Unless there is higher net overseas migration in the future to make up for these declines, there will be lower projected population levels than expected prior to the pandemic.93 This could see Australia finish the decade with up to 1.7 million fewer people than previously forecast having implications for Australia's economic recovery, construction sector, and infrastructure projects.94

While this dramatic decrease in the inflow of skilled migration is not expected to be a long-term trend, there was already a global trend of countries restricting immigration prior to the pandemic, including Australia.95

To boost their economic recovery from the pandemic many countries like Canada are increasing immigration numbers by as much as 20% pre-COVID levels.96 Canada will welcome more than 1.2 million migrants between 2021 and 2023 with skilled migration accounting for 60%,97 and also granted permanent residency to more than 90,000 temporary residents in 2021, targeting essential workers, international students, and French speakers.98 While France is fast-tracking citizen applications from foreign workers involved in the pandemic front-line, including not just health care workers but also garbage collectors, and retail assistants.99 In contrast, more than 500,000 temporary visa holders have left Australia since the beginning of the pandemic because of narrowing permanent residency pathways, long wait times for visas, and the lack of government support during the pandemic.¹⁰⁰



2 out of **3** recent migrants have a post-secondary school qualification

Australia's migration program is heavily skewed towards skilled migration

Prior to COVID-19, Australia's skill stream made up more than 68% of total migration (in 2018-19). This focus has resulted in more than two thirds (69%) of recent migrants aged 15 years and over holding a post-secondary school qualification before they arrived in Australia. Of these migrants, 79% held a Bachelor's degree or higher, and another 13% had an Advanced Diploma or Diploma-level qualification.

The most common field of study for recent migrant's highest pre-migration qualification was management and commerce (25%), followed by engineering and related technologies (19%), health (12%), and information technology (12%).¹⁰¹

See Appendix 1 for more information on skilled migration policies and programs, and international student visas in Australia and New South Wales. The majority (61%) of Australia's most successful tech startups since 2003 were founded by first-generation Australians with migrant parents. This trend is similar in the US, where first or second-generation Americans founded 60% of highly successful startups.¹⁰²

Box 2

Global Talent Visa and Global Business and Talent Attraction Taskforce

With the competition for global talent intensifying, the Commonwealth Government established the Global Business and Talent Attraction Taskforce in September 2020 to attract exceptionally talented individuals and top tier business to Australia. The Taskforce's mission supports the Government's JobMaker plan to boost our economic recovery and national prosperity by growing the number and quality of jobs in Australia.

The Taskforce is a whole of nation effort led by the Department of Home Affairs and the Australian Trade and Investment Commission, together with key Commonwealth agencies, the State and Territory Governments, and experts from industry.

The Taskforce is a deliberately agile and aggressive effort to secure the companies and talent that can make a significant economic contribution to Australia, and thereby:

- build national resilience by filling critical gaps in Australia's supply chains
- boost productivity
- diversify Australia's export markets
- expand the channels of capital available for investment in strategic growth sectors
- build Australia's skills base.

The Taskforce is looking for exceptional individuals who have the potential to generate jobs, particularly in areas that fill critical supply chain and talent gaps. This includes:

- Individuals with international distinction as leaders in culture, science, the arts, or commercial enterprise.
- Individuals with the ability to commercialise ideas at scale or generate multiple jobs, particularly in areas that fill critical supply chain and talent gaps.
- Innovators and serial entrepreneurs.

The Taskforce offers eligible individuals and businesses a facilitated relocation of executives, critical staff, and their families; fast track visas with a streamlined pathway to permanent residency; and connections to essential industry and professional networks.

The Global Talent visa is the primary visa used by the Taskforce and can be applied for within or outside Australia. The visa offers permanent residence and is priority processed.

Commonwealth Government officers are placed in key international locations to promote the program and initial take-up has been promising, with 12,167 visas issued between 21 March 2020 and 30 June 2021. The majority of visas granted under the GTI program to date have been in digital technology, including experts in quantum computing, blockchain and long-range wi-fi; researchers and entrepreneurs in health and life sciences; specialists in resources and clean energy; and professionals in biotechnology and advanced manufacturing.¹⁰³



Sector-specific visas and residency incentives target skills shortages

Sector-specific skilled work visas offer a more targeted approach to skilled migration, enabling a country to target skills shortages. Special visas can also offer a fast-track to permanent residency and citizenship. This approach is particularly prevalent for highly skilled technology workers, with migration shown to improve a region's technological capabilities.¹⁰⁴ As technology becomes more integral to all sectors of the economy, demand is increasing for cyber security experts, data scientists, software engineers, programmers, and cloud computing experts.¹⁰⁵

The global shortage of highly skilled technology workers has seen many countries introduce targeted tech visas:

In 2019, France overhauled its visa scheme to make it easier to work in the country by removing the education qualifications many skilled visa schemes require and increasing the number of companies that can access the French Tech Visa from around 100 companies in 2017 to more than 10,000 startups that now qualify for the program. To be eligible, applicants need to provide a signed work contract (minimum three-month duration) with a French company eligible to recruit via the French Tech visa and a gross annual salary twice the French minimum wage (around €37,000 in 2019). 106,107

To fast-track tech talent in the **UK**, the country established the Tech Nation Visa that provides an immigration pathway for talented and promising tech talent, with the potential for a further extension of an additional five years.¹⁰⁸ Since 2014, Tech Nation has processed 2,440 visa applications, endorsing 1,300 visas from over 90 different countries.¹⁰⁹

Portugal is also offering residency and the prospect of eventual citizenship to tech workers and entrepreneurs. The country offers a path to an EU passport for anyone willing to hire at least ten workers or make other major investments in the local economy.¹¹⁰

Most recently, Estonia's Parliament passed laws on 3 June 2020 for a digital nomad visa that allows people to enter Estonia as a tourist and continue working for a foreign employer or as a freelancer independent of location. The Estonian Government predicts that up to a maximum of 1,800 people a year will apply.¹¹¹ It will give foreign citizens a 365-day visa valid for Estonia and up to 90 days in 26 European countries. This will reduce administrative hurdles required for work visas and the barriers to entry for tech workers wanting to work abroad, while capitalising on Estonia's reputation as a leader in e-solutions.¹¹²

"When people come (to Finland), they tend to stay, so we needed to find an attractive way to get them here."

Joanna Huurre, Helsinki Business Hub¹¹³

Finland launched a free 90-Day Finn relocation package for tech workers in February 2021 through Helsinki Business Hub to help put Helsinki on the map for global talent.¹¹⁴ It provides 15 winners with relocation support, including housing and school/daycare assistance (although airfares and housing expenses are not covered), cultural training, introductions to local business networks, and remote work facilities, with the option to apply for permanent residency. It is hoped this model could become a new approach in attracting global talent.



Box 3

New Zealand's LookSee Initiative

To attract more international tech workers to New Zealand and overcome residency and relocation barriers, the LookSee program was launched in 2017 by the Wellington Regional Economic Development Agency and Workhere New Zealand and supported by NZ Immigration and NZTech.

The initiative flew 100 pre-screened tech professionals to New Zealand for a series of pre-arranged job interviews with companies in need of talent. The program was designed to give people a chance to 'look and see' before deciding to relocate, and without having to pay to get there. The four days of interviews and touring around Wellington coincided with the TechWeek 2017 festival.¹¹⁵

The campaign cost around \$300,000 and received 48,000 applications, the majority of which were from India and the US. Of the 93 applicants making the trip, 64 of the IT professionals accepted job offers after one month or were in discussions with Wellington firms to do so.¹¹⁶ The employer pays a fee, set at just over \$9,000 per hire, of which a proportion is returned to the Wellington Regional Economic Development Agency and with the rest going towards developing a marketing strategy, online recruitment infrastructure, and travel and recruitment management.¹¹⁷

LookSee Wellington was expanded across the country in 2017 and New Zealand's LookSee program was born to provide end-to-end talent attraction and management to address skills gaps. With LookSee, individuals can create an account to register, giving them exposure to New Zealand employers while simultaneously helping companies find the right talent.

LookSee also runs specific campaigns based on industry- or company-specific requirements. LookSee Housing, for example, is a company-specific campaign run by Housing New Zealand to attract construction professionals to help build 100,000 new homes in the next ten years.¹¹⁸

Tax and financial incentives help attract talent

According to the OECD, skilled workers are attracted by the tax rates and welfare systems of destination countries,119 although better career opportunities and a high quality of living are becoming increasingly important for individuals (see 3.3 Personal and Social Factors for more information).

Switzerland, a top scorer in international talent rankings. has considerable flexibility in attracting and retaining talent through financial incentives and varying income tax rates.¹²⁰ It also has a quota system which allows companies to recruit highly qualified specialists from overseas. The quotas were not exhausted in 2019 and remain at the same level for 2020.121

Ireland has the lowest corporate tax rate in Western Europe (12.5%) and attracts global companies, particularly in technology, wanting a presence in Europe.¹²²

The Netherlands' 'IN Amsterdam' service provides streamlined procedures and support to make it easier for international talent to move and settle, and a 30% tax-free allowance for five years.123

Canada's success as one of the fastest growing hotbeds for game development has been achieved through several national and provincial tax incentive programs, development funds, and grants offered to startups. One third of temporary foreign workers have now become permanent Canadian residents, with 8% becoming citizens.¹²⁴

In the **US**, many states and local government areas are attracting highly skilled workers through financial incentives. For example, Vermont launched a program in 2019 that pays skilled workers \$10,000 to move to the state, while Maine offers a tax credit to attract graduates paying off their student loans.125

Tax and financial incentives can also be used to attract expats back to their home country. Portugal is actively enticing talented citizens back by making it easy for them to resettle. Portugal has one of the highest percentages of citizens living abroad and launched the Regressar scheme in 2019 to entice citizens who have lived away for at least three years home by offering 50% off their income tax bill for five years. The scheme also offers financial help (around €6,500) to relocate and support for those searching for jobs while still overseas.126

Australian personal and company tax rates are comparably high

Australia's tax rates for both companies and individuals, however, are considered relatively high—currently 30% for most companies and 45% for top talent in the highest marginal individual tax rate. Most people are also liable to pay the additional Medicare levy of 2% (although the levy does not apply to non-residents).

When combining taxes on personal income and business profits, Australia raised 58.8% of total federal and state government revenue from these sources, significantly higher than the OECD average of 34%. By international standards, this represents the second highest taxes on personal income and business profits combined out of 34 of the world's leading economies. Personal income tax represented 40.3% of total government revenue, below only Denmark in 2017.¹²⁷ The Commonwealth Government has committed to introducing income tax cuts, including for top earners.

A place's reputation and branding help raise its profile to global talent

Country and city reputations are built over decades. While reputation can sometimes be more about perception than reality, they are the culmination of experiences, messaging, and information communicated through official and unofficial channels over long time periods.

While changing a reputation can take time and branding campaigns are not a magic bullet, proactive initiatives that promote a location as an inviting place to work and which directly communicate a country's openness for foreign workers can go a long way to improving perceptions.

Campaigns can be country- or cityspecific, or more targeted to an industry or profession to build on existing competitive advantages. They are also likely to be more beneficial for lower-profile cities or regions.

lreland has successfully branded itself as a top destination for technology jobs, attracting large tech companies such as Google, Twitter, Facebook, PayPal, and others. A combination of government initiatives such as Tech Life Ireland and Connect Ireland (see Box 4), aimed at attracting investment and talent, as well as locally skilled labour, a low corporate tax rate, and supportive infrastructure, are all often cited as the reasons why the Irish software sector is so successful globally.¹²⁸

Similarly, Amsterdam focuses on attracting and retaining international talent through its "Amsterdam Works" program under the 'I Amsterdam' brand, ¹²⁹ and 'Brainport' in regional Eindhoven, which is marketed as a high-tech area.

Denmark's digital campaign 'Codenhagen Challenge' is another example of a brand and marketing approach to promote a country as an attractive talent destination, in this case aimed at the tech industry.

Scotland's 'Talent Scotland' campaign (see Box 5) builds on their 'clanship' to attract talent using the tagline 'Join Our Clan — Scotland welcomes talented people', positioning Scotland as a place to have both a brilliant career and an excellent quality of life.¹³⁰

In Australia, a Global Business and Talent Attraction Taskforce has recently been established to "...transform Australia into a more powerful magnet for marquee enterprises and exceptional individuals so we can reap the benefit of their ideas, capital, talent and networks." ¹³¹

While the initiative (see Box 2) doesn't directly provide branding for Australia as a destination for talent, the Taskforce's website globalaustralia.gov.au does provide a 'Why Australia?' value proposition. This includes information on doing business in Australia, our lifestyle, competitive advantages in key industries, and case studies of successful companies and individuals. While it focuses on eligibility for support from the Taskforce, it also provides links to the Global Talent Visa Program and other visas for highly skilled workers.

At a state level, the Global NSW brand positions Sydney and New South Wales as "Australia's global hub" focusing on growing and diversifying trade, stimulating new business investment, fostering innovation, and boosting industry competitiveness. Growing NSW's talent pool features in many aspects of Global NSW's high-level strategy, however there is an opportunity to specifically embed attracting and retaining international talent more specifically. This is discussed further in Chapter 4 Opportunities for NSW Government.

Informed employers help attract global talent

Countries or places that successfully attract international talent commonly provide services and assistance to help employers understand the value of international talent and how to employ them. This support includes online information on how to recruit international workers, covering the visas and processes involved, and the skills being actively targeted.

These services provide a one-stopshop for employers looking for skills and how to recruit overseas talent, as well as information for prospective international talent on visas, job opportunities, and quality of life.

Consultations for this report indicate that NSW employers, particularly smaller businesses without dedicated Human Resources units, need more easily accessible information on:

- how to recruit workers from overseas (including expat Australians)
- education on visas and the processes involved
- employment laws.



Brand Ireland

Tech Life Ireland is an example of an effective locational branding and communication campaign specifically tailored to attracting highly skilled tech talent. Launched in 2016, Tech Life is a government-funded international marketing campaign, delivered in partnership with Ireland's inward investment promotion agency and the tech industry to build on and market Ireland's reputation as a top destination for technology talent.¹³³ The website www.techlifeireland.com provides comprehensive information on moving and living in Ireland, local tech events, and case studies.¹³⁴



Talent Scotland 'Join Our Clan —
Scotland welcomes talented people'138

Talent Scotland, part of Scotland's economic development agency Scottish Enterprise, is an initiative that provides extensive information for talent considering a move to Scotland, as well as information and a range of free services for Scottish employers looking to recruit talent. Support for employers includes:

- information on recruiting skilled people from abroad
- access to a network of international skilled professionals already considering working in Scotland
- promotion of their company and highlighting job opportunities to thousands of specialised professionals globally (an A-Z of Scottish company profiles are included on the website).

Talent Scotland provides rich, personalised accounts of people's actual experience once they move to Scotland, with numerous case studies and videos of Talent Ambassadors. These Talent Ambassadors are also available to answer practical questions about moving to, living, and working in Scotland, based on their own experiences.

The Talent Scotland website also provides a searchable list of professional expertise in STEM fields that are sought after in Scotland. This provides users with immediate job ads without taking you to a third-party website (the job search is powered by Indeed).

To help potential talent and local employers, Talent Scotland links to the National Academic Recognition Information Centre for the United Kingdom (UK NARIC) service that compares international qualifications with UK academic qualifications within a relatively short time period of 10-15 working days for a modest fee (about £60).

The Talent Scotland website links to the 'Study in Scotland' website, which promotes opportunities for international students, but more importantly, has dedicated information on 'Staying in Scotland after your studies and the range of visas that might be available. These include Start-up Visas, Innovator Visas, Investor Visas, visas for continuing other studies, and spouse or partner visas.

Talent attracted to places with quality education and training systems

The top-performing countries in talent competitiveness rankings are rich nations with a longstanding commitment to their people's education. They also have a large share of their workforce employed in skill-intensive occupations across a broad range of sectors.

New South Wales is home to a world-class education system. It competes strongly on the international stage, with the State's universities consistently featuring in top world rankings. Australia's high-quality public primary and secondary schools are also consistently cited as a major drawcard for talent with school-aged children.

New South Wales also contains leading research organisations, vocational education and training institutions, including Government-owned Technical and Further Education (TAFE) Institutes, as well as private education and training providers, and English language colleges.

In addition to attracting migrants who already hold formal qualifications, many recent migrants take up study after arriving in Australia. More than a third (35%) obtained a non-school qualification and almost half (48%) obtained a Bachelor's degree or higher.¹³⁹

Box 6

Singapore program pays for PhD studies abroad but requires them to come home for three years

International study is highly valued in Singapore, but there are concerted efforts by the country to ensure that those studying abroad are not permanently lost to other economies.

The Singaporean Agency for Science, Technology and Research (A*STAR) is a statutory board reporting to Singapore's Ministry of Trade and Industry. A*STAR has an extensive international fellowship and scholarship program¹⁴⁰ which is part of a broader strategy for the education system to "...attract foreign talent, develop local talents and cultivate in them a sense of rootedness to the country"¹⁴¹ in the war for talent to "... promote immigration into Singapore to compensate for those leaving."¹⁴²

The A*STAR International Fellowship acknowledges the importance of overseas research experience and fully funds overseas post-doctoral training for Singaporean PhD students, but with the explicit caveat that talent return upon completion to begin a career at an A*STAR research institute for a minimum of three years.¹⁴³

Organisations such as the Singapore Global Network also encourage Singaporeans located overseas to continue engagement with national culture and identity to maintain a connection and promote opportunities and developments in Singapore and Southeast Asia.¹⁴⁴

Singapore is also developing local skills through SkillsFuture, a national initiative providing people aged 25 and over with \$500 on top of existing government subsidies for approved skills-related courses at universities, polytechnics, institutes, and online platforms. 145



International students are a significant source of talent

University education can provide an important entry point into a desired labour market and international students represent a significant source of talent. On completion of their studies they receive an Australian qualification, eliminating the challenges associated with qualification recognition. A key factor in location choice for international students is the ease in which they can transition into the labour market.

Australia is cited as being easier than the US, where there has been a decline in the availability of high-skilled visas. American universities have become less attractive to foreign students as a result when compared with Australia, where international students are predominantly from East Asian and South Asian countries.¹⁴⁶

Up until the advent of COVID-19, international education was Australia's fourth largest export, with the sector worth almost \$37.6 billion to the national economy and \$13.9 billion to New South Wales in 2018-19. The sector also supported 95,692 jobs in the State and 247,454 jobs nationally in 2018. 148

Additionally, international students make a significant contribution to the tourism sector. More than 576,000 of Australia's 8.5 million international visitors in 2018 stated their main purpose for coming as education, according to Tourism Australia figures. These visitors also spend much more than the average tourist, accounting for over 38% of total tourism spending. In 2018, spending from Chinese education visitors was greater than that of the US and UK for all purposes combined.¹⁴⁹

New South Wales has the largest share of international students in Australia (38%)¹⁵⁰ while Sydney consistently ranks as one of the leading locations for international students.¹⁵¹ In 2019, there were 287,362 international students in New South Wales. The top ten nationalities¹⁵² were:

	Country	Students
1.	China	82,111
2.	Nepal	35,097
3.	India	29,813
4.	Brazil	13,536
5.	South Korea	9,893
6.	Thailand	9,218
7.	Vietnam	8,904
8.	Indonesia	8,881
9.	Colombia	6,798
10.	The Philippines	6,621

International student numbers have plummeted around the world as a result of COVID-19, including Australia. Study NSW is working closely with the Australian Government, the education sector and NSW Government agencies to support the return of international students to NSW. The NSW International Student Arrivals Pilot Plan will enable 250 international students studying with NSW education providers to return each fortnight from early December 2021.

We must, however, compete with other leading international student destinations that are on the front foot, offering student incentives and access to post-study work rights to overcome the challenges presented by the pandemic.

Canada, for example, has introduced an allowance for international students to start their study online before travelling to Canada up to halfway through their degree. Students who commenced their study online can also count the online time towards a post-study work visa.

The **UK** has adopted a similar approach by announcing that every university student will have access to post-study work.¹⁵³

"...the tax system in Hong Kong is more favourable...but rents are very high...education in Hong Kong is also very expensive so the tax benefit goes away pretty quickly. Our kids are in the public system in Sydney, which is great. I am very happy to be back."

Returned Australian expat, 35-45-year-old male, finance industry.

The transition from international student to Australian resident

Most international students return to their home countries, although a joint Australian Government Treasury and Department of Home Affairs report published in 2018 found that, of 1.6 million overseas students granted a visa between 2000 and 2014, 16% transitioned to a permanent residency visa at some stage after arriving in Australia.154 In addition, an increasing number of students obtain a temporary graduate visa (an important Federal lever in attracting international students to Australia). 155 Appendix 1 provides more information on visas for international students.

Despite almost three-quarters of temporary graduate visa holders being employed either full-time (44%) or part-time (30%), Australia may not be benefiting from the full potential of international graduates.

Temporary graduates are more likely to be working in low-skilled occupations in sectors such as hospitality and food preparation than skilled migrants, despite holding higher-level qualifications (54% of temporary graduate visa holders have a Master's degree qualification and 37% a Bachelor's degree). 156

There may be several reasons for this, including that skilled permanent migrants tend to be selected based on skills shortages and are more likely to have additional professional experience. Furthermore, temporary graduate residency status is less attractive to employers than permanent migrants. Study NSW (see Box 7) has several initiatives co-funded with industry partners to improve the international student experience and enhance their employability.

While skilled migrants fare better overall compared with temporary graduate visa holders, many experience the same challenges. Nearly one in four permanent skilled migrants in Australia are working in a job beneath their skill level (see Section 2.1 Australia is a top performer in attracting and growing talent).

When considered together, it suggests Australia may not be fully benefiting from the skills it imports, whether they be permanent skilled migrants or international students that work after their studies. CEDA examine the issue (in the context of skilled migrants) in their report 'A good match: Optimising Australia's permanent skilled migration' and make four recommendations for the Australian Government to improve skilled migration policies, including better matching and use of migrant skills.157



Box 7 Study NSW

Study NSW is a dedicated unit within the NSW Government that supports international students by improving the quality of their experience and recognising their contributions to our communities. It is responsible for delivering the ten-year international education strategy outlined in the Industry Action Plan and positioning New South Wales in key markets as a leader in international education.

Study NSW recognises that international students choose New South Wales not just to get a world-class education but to tap into the many opportunities to gain real-world work experience, both during and immediately after their studies. Study NSW helps improve businesses' awareness of international student talent, their employability skills, and helps connect them with industry through co-funded programs such as the Global Trade Accelerator.¹⁵⁸

Between 2014 and 2019, Study NSW co-funded 45 partner projects reaching more than 8,000 international students. Over the same period, Study NSW's \$1.8 million in funding was matched by \$6.9 million in industry contributions.¹⁵⁹

Since June 2020, Study NSW has also supported almost 6,000 international students during the COVID-19 pandemic through the Temporary Crisis Accommodation Scheme. The \$20 million program has provided a safe home, comfort, and support to international students facing hardship during the pandemic through up to 20 weeks free accommodation. 160

Recognition of qualifications and ease of job transfer make it easier to attract talent

Many occupations with specialised knowledge and skills require registration, licensing, professional membership, or other industry requirements that must be met before an individual can start work. In some occupations, requirements are mandatory by law.161

A range of organisations and institutions in Australia conduct recognition of overseas qualifications, and the path to recognition depends on whether the person is seeking employment, immigration, or further study. For example, the Australian Government's Department of Home Affairs manages enquires about qualifications for immigration, while admission to Australian universities is determined by the individual institutions.

The Commonwealth Government. through the Department of Foreign Affairs and Trade (DFAT), works with professional associations in Australia and partner countries to establish Mutual Recognition Agreements to enable foreign professionals to work in Australia, and Australian professionals to work overseas.¹⁶²

The Australian Bureau of Statistics (ABS) reports that in the last ten years, 40% of migrants who arrived with a qualification had applied to have these recognised by an Australian association or government agency, and pre-migration qualifications were fully recognised in 90% of these cases.163

Critics of the Australian system describe it as complex, costly, and time-consuming, with migrants' skills not effectively used.¹⁶⁴ While licensing, registration, and regulation can be potential barriers for individuals with overseas qualifications, the challenge is to find the right balance between protecting Australians' public health and safety and maintaining the high standard of Australian qualifications and training, while also recognising genuine skills and competency gained overseas. This obviously becomes more challenging in high-qualification jobs where public health and safety is at risk, such as with doctors and other healthcare professionals.

Other countries that rank highly on talent attractiveness, such as Norway, also face the same challenges. The Norwegian Skills Strategy 2017-2021 recognised that many immigrants with high skills find it challenging to obtain recognition or complete their education in Norway. The strategy identifies that recognition schemes for foreign qualifications and vocational qualifications need to be simplified and improved.165

"We don't just hand over a relocation budget and say, 'See you when you get here!' Move Happy, our relocation program, provides new Atlassians with airfare, temporary housing, work visas, help finding schools and permanent housing, furniture and vehicle shipping, personalised welcome gifts, and even pick-up at the airport. We also set up regular events so new hires can continue to connect with other Atlassians going through a similar transition."

Devin Rogozinski, Talent Brand Global Lead, Atlassian¹⁶⁶

"If you've gone to Harvard and you transfer to San Francisco, Harvard will know your address before you do."

USSC case study participant, Senior Manager, Investment Advisory, Australian expatriate living in the United States for the last three years.

Management

3.2.9

practices, culture and networking opportunities influence talent preferences

A company's culture, management practices, and brand are particularly important for talent considering relocating. Research by LinkedIn found that half of candidates won't even consider working for a company without a strong employer brand, regardless of the pay. Talent acquisition professionals and HR managers around the world support this view, with 80% agreeing that a great brand makes it easier to recruit top talent.¹⁶⁷

Nordic countries perform well in international rankings on meritocracy, professional management, and attention to employee development. These countries are well-positioned to attract millennials who are focused on professional and personal development.¹⁶⁸

A 2018 survey by the Boston Consulting Group found that the top job preferences involve a good relationship with peers and manager, and work-life balance which is part of an employer's culture.¹⁶⁹

Networking is also highly valued by global talent, enabling knowledge exchange, collaboration, and advancing career opportunities. The Victorian Government runs The Victorian Connection LinkedIn group to connect Victorian alumni together (see Box 8), while in the US, university alumni networks are extremely strong and being a 'member' provides wider connections and opportunities for business.¹⁷⁰

Research by USSC found that in Australia alumni connections to their university are below those in the US, with the 2018 International Graduate Outcomes Survey of Australian universities finding that more than a quarter (27%) of Australian university graduates are unlikely to stay connected^{vi} to their university after graduation.¹⁷¹

Vi Calculated using the combined percentage of graduates that stated they are "Not that likely" and "Not at all likely" to stay connected with their university through alumni associations nationally (as an average of the 30 universities that participated) over the next five years from the International Graduate Employment Outcomes Survey 2018 that surveyed international students and alumni from Australian universities.



The Victorian Connection — professional alumni network

The Victorian Connection is a networking group that connects professional Victorians including expatriates, repatriates, and alumni-with other Victorians, and those with Victorian interests overseas through LinkedIn. The Victorian Government runs the LinkedIn group to help members:

- · Develop social connections with other professional Victorians living locally and abroad.
- Connect with Victorian trade and investment representatives globally.
- · Connect with other representatives from industry, government, business chambers, or academia.
- Learn about industry developments in Victoria and opportunities with Victoria.

As at 29 March 2021, there were 5,722 members. There are also sub-groups focusing on specific countries such as the UK, US, Canada, India, China, or on regions such as the Middle East.

The Victorian Department of Jobs, Precincts and Regions manages The Victorian Connection which has a newsletter and website https://connection.vic.gov.au

3.3 Personal and social factors

Personal and social factors such as age, gender, marital status, family background, and culture influence a decision to move.¹⁷² Education, language, country of origin, and resource constraints can also affect destination choices.¹⁷³

"[The drawcard to move to Australia] was probably four factors: cultural similarities between Canada and Australia; an existing network of family and friends; diversity in work opportunities; and the Australian beach life."

Nick Martin, Associate Director, KPMG¹⁷⁴

People who are single and those without children are more likely to consider an opportunity overseas. Highly skilled technology staff are also more willing to move for a job (67% of respondents from a Boston Consulting Group and The Network survey of 366,000 people in 197 countries), compared to blue-collar workers.¹⁷⁵

People's job preferences also change over their lifetimes. Workers' concerns over money increase in their 30s and peak in their 40s and 50s when they may be raising a family and have the most financial obligations. Job preferences are also affected by personal circumstances that vary, for example, giving your children the opportunity to live abroad.¹⁷⁶ Family ties can also be a strong driver of return migration.

The main reasons why people move overseas are also changing. Previously, the opportunity to broaden personal experience was the most important reason, however, better career opportunities and a high quality of living have become increasingly important.¹⁷⁷ High earnings or strong economies are not enough to attract talent anymore. The amenities and social policies of a country, including its level of diversity and inclusiveness, have become key deciding factors to move.¹⁷⁸ In fact, the quality of life and environmental conditions constantly rank among the top reasons for migration in surveys.¹⁷⁹

Talent movement influenced by family, stage of life and social networks

For those with a partner or family, opportunities for their partner to work and the ease of acquiring citizenship for their children are important considerations. In OECD countries, joining or accompanying a family member is the most important reason for migration, accounting for nearly 40% of all permanent entries in 2015. Countries where family members have better opportunities, easier citizenship access, quality education, and lifestyle are more appealing.

"They understand here
(in Finland) that your family
is important, that time off is
important... Back in the US,
I was always stressed rushing
to meetings and rushing home
to take the kids to soccer;
I didn't have much flexibility."

Harinder Jaswal, 2021¹⁸³

"「The I decision to return was driven by family obligation and the desire to be close to my parents."

35-45 year old female, returned Australian expatriate who lived in 12 international cities including in South-East Asia and the United States, Tech consulting industry.

> Another key factor for Australians returning home is the desire to support parents who are unwell or getting older, or wanting to raise children outside of the 'expat bubble'. A 2019 survey of returned Australian expats by Advance.org and Indeed found that most return home to be closer to family and friends (53%) and ageing parents (51%), while a third (32%) come home so their children can attend an Australian school. One in five (21%) return because they tire of living overseas.184

There appear to be distinct stages when people contemplate moving overseas:

- · when considering having children;
- as children enter the school system;
- in the transition between primary school and high school;
- when children go to university or college; and
- before the birth of grandchildren.¹⁸⁵

"Around the ages of 37-44 people, make a decision that sticks as children are starting school and they're starting to form a social network with other parents, cementing their place in the community."

Senior Manager, Australian expatriate living in the United States for the last three years.

3.3.2

Quality of life and safety are important factors in attracting talent

Quality and diversity of life play a significant role in talent relocation and retention. The type and number of amenities desired vary depending on age. Students and childless young professionals look for cultural activities, nightlife, and good public transport. Families, in comparison, are more focused on affordable housing, green space, childcare, education, and healthcare. 186 and the high cost of these can be a deterrent when deciding to move.

Safety is also an important consideration. The Talent Montreal strategic campaign (see Box 9) markets Montreal as one of the safest environments in the world with the lowest homicide rate among major North American cities.¹⁸⁷ It also markets the city as a destination for career advancement and quality of life. Under the banner 'Family, festive and inclusive', the campaign provides information on Montreal's lifestyle, culture, affordable housing (compared with other North American cities), wellbeing, and safety.¹⁸⁸

New South Wales and Sydney have much to offer in this regard. Quality of life and safety are major drawcards for both new migrants and returning expats. Participants interviewed by Advance.org for this report cited being drawn home by better health outcomes, the ability to spend time outdoors (especially for kids), seeking a more relaxed lifestyle, and avoiding the negative social norms of other countries. Most interviewees noted the very strong 'organic' pull of Australia, from well-known lifestyle factors such as climate and the environment to other factors that cannot be taken for granted such as freedom of speech, legal rights, and better traffic safety.

"In a race for talent, an inclusive culture can really draw people in and make them stay."

Deborah DeHaas, Vice Chairman and Chief Inclusion Officer, Deloitte

3.3.3

Culturally diverse and inclusive places draw talent

Research shows that ethnicity, race, gender, and age matter when it comes to diversity in thinking and innovation. ¹⁸⁹ Diverse teams outperform non-diverse teams as they demonstrate less cognitive bias, base decisions on facts rather than opinions, and can draw on a broader range of perspectives to tackle challenges. ¹⁹⁰

"It is above all, cognitive diversity (diversity of knowledge, experience, and perspectives) that, through teamwork and collaboration, leads to innovation and outstanding performance." 191

It's no surprise that San Francisco was ranked the number one city in the Global Talent Competitiveness Index in 2021 and New York in 2020, as talent are attracted to highly diverse, cultural cities with energy and creativity.¹⁹²

Countries where individuals face discrimination because of their gender, race, sexuality, or marital status have much higher barriers to attracting talent.

Migrant social networks are also important in deciding to move to a new country and can affect how well immigrants integrate, while keeping a connection to home. There are a range of organisations such as The South African Diaspora Network and GlobalScot that promote networking, mentoring, training, investment, and venture capital initiatives for development in the home countries of diaspora members.¹⁹³

While migrant social networks are important in helping attract and support talent, integration with the host country's culture is critical to economic and social success.¹⁹⁴

The culture of a place can also have a big influence on its attractiveness. For example, the USSC research found that the US "has a culture of praising people" where there is ambition for others to succeed, a willingness to take risks, and where innovation is exalted.¹⁹⁵





Montréal International

Promoting Montréal's culture, diversity, and inclusiveness to prospective talent, international students, and businesses is a key aspect of the work undertaken by Montréal International, the economic promotion agency of Greater Montréal.

Montréal International is a non-profit organisation financed by the private sector, the governments of Canada and Québec, the Montréal Metropolitan Community, and the City of Montréal. It was created in 1996 to attract direct foreign investment, international organisations, entrepreneurs, talented workers, and international students to Greater Montreal and Quebec.

Montreal International has a team of about 80 staff and runs Talent Montréal (attracting international talent), I choose Montréal (attracting and retaining international students), and Contact MTL (a network of ambassadors for Greater Montréal).¹⁹⁶

Since its inception, Montréal International has helped:

- attract \$18 billion in direct foreign investment
- around half of the city's 66 international organisations establish themselves in Quebec
- attract and retain more than 11,000 international workers.¹⁹⁷

Cultural diversity management courses are run by Montréal International to provide businesses in Quebec with the right tools to successfully integrate and retain the international talent they recruit.¹⁹⁸ It also provides training and support for spouses of international talent to simplify their integration into Québec society.¹⁹⁹

Similarly, the Quebec Ministry of Immigration, Diversity and Inclusion was a key partner in developing the 'I choose Montréal' initiative, to better equip international students who study in Montréal or choose to stay after graduation.

In 2018, Montréal International recruited 640 skilled foreign workers—an increase of 116% over the previous year and a 351% increase since 2015—demonstrating the increased importance of international talent attraction. This initiative was the result of 14 sector-specific or multi-sector recruitment missions organised by Montréal International for the benefit of 143 local companies that were looking for talent.

The average annual salary of those recruited was 70% higher than the average salary in Québec's private sector.²⁰⁰ This work is in addition to the organisation's other economic development work, such as facilitating foreign direct investment and helping to attract and retain international students.

"The availability of talent is one of the main things that foreign investors look at. Foreign companies make up only one per cent of businesses, though they have a significant impact on the economy as they account for ten per cent of jobs and 20 per cent of GDP," Hubert Bolduc, President and CEO of Montréal International says.²⁰¹

3.3.4 Gender equality improves a country's attractiveness

Many of the top countries attracting talent have some way to go address the gender imbalance. Switzerland and the USA have corporate boards comprising only about 20% women, while Canada has 26% and Australia 29%.²⁰² This is well below France, Iceland, and Norway, where women account for over 40% of corporate boards (Figure 3). The top nine countries with the highest percentage of women represented on corporate boards are European, while New Zealand (30%) claims the tenth spot.

What does this all mean for talent attraction? Unsurprisingly, a lack of gender diversity not only lowers innovation in professions that are highly segregated, but also has a compounding effect on gender pay gaps and job preferences, the most segregated professions being Engineering, and Cloud Computing. While the gender gap in Cloud Computing is closing in some countries, particularly those with smaller gender gaps in STEM higher education like India and Italy, women continue to be under-represented in disruptive technology professions in general. This includes careers in Artificial Intelligence, Robotics, and Genetic Engineering, which are highly sought-after skills globally.²⁰³

Mercer's 2017 Worldwide Survey of International Assignment Policies and Practices found that women on average comprise only 14% of the expatriate workforce globally. There are differences between regions and industry sectors—women make up only 10% of the expatriate workforce in the Asia-Pacific region but closer to 20% in the USA, while the energy and high-tech sectors have some of the lowest percentages of women in the expatriate workforce (ranging from eight to 11%). Women make up 23% of the life science sector expatriate workforce globally.204

Global talent attraction strategies can affect women's mobility. Women are more likely to face family barriers including childcare arrangements, while many family support policies for talent attraction are designed for males with children and a spouse. Global talent strategies could better address the barriers women face by offering policies such as spouse support and support for single parents, most of which are female.²⁰⁵

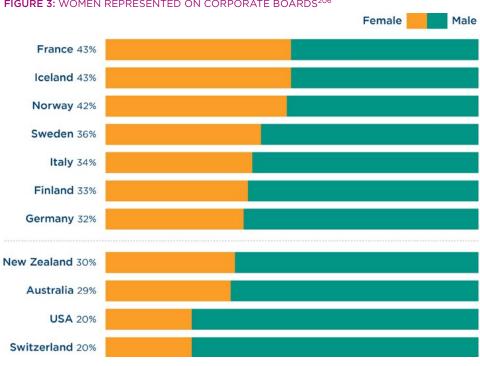


FIGURE 3: WOMEN REPRESENTED ON CORPORATE BOARDS²⁰⁶



3.3.5

English proficiency attracts diverse talent

Language is an important factor for global talent movement. English is the world's most common language, spoken by a quarter of the world's population.²⁰⁷ Language influences a country's ability to attract global talent. For example, language and cultural barriers make it harder for China to attract talent from abroad.²⁰⁸ There is a strong correlation between countries and cities that successfully attract talent and English proficiency.

Language can also play an important factor when retaining talent.

An OECD report on recruiting immigrant workers in Norway identified a lack of practical information offered in English as a significant issue,209 and the difficulties for spouses or partners to find work. Lack of language skills was found to be a significant barrier to employment in Norway.²¹⁰

Research also found that English-speaking teams attract more diverse talent. Many international companies are adopting English as a common company language, with 70% of executives stating that their workforce needs to master English for it to realise its corporate expansion plans.²¹¹ Only seven of the top 100 companies in the Thomson Reuters IX Global Diversity and Inclusion Index 2018 are headquartered in countries with low English proficiency.²¹²



Many others return to Australia because of the lifestyle or because they are just tired of living overseas.

The failure of a spouse or partner to secure meaningful, continuing employment can also be an important factor in returning home, particularly for younger generations.

Many expats however struggle to find employment through traditional channels when returning home, which can take an emotional toll. Recruiters tend to value local networks and Australian experience over international experience, with over half of returning expats securing new employment through their own professional or personal connections.²¹³ Anecdotal evidence based on consultations for this report suggests that attitudes towards talent may differ depending on whether employers are 'new economy' or traditional firms.

Many expats also have limited social networks that can help them with things such as their children's schooling, when they return to Australia. In comparison, expats describe the support they receive from the 'Australian Mafia' in London and New York as essential for helping them to adjust and thrive in these cities.

Advance.org argues that the Australian diaspora is a resource which could be better utilised and that there should be no barriers for returning Australians as they are citizens, English-speaking, with local qualifications and global experience. The skills and characteristics of global Australians (flexibility, adaptability, resilience) are sought after by recruiters and employers, but difficult to value. "The many millions of Australians who have, do, or will live outside of the country represent an incredible, unique and largely untapped national resource," the report says.²¹⁴

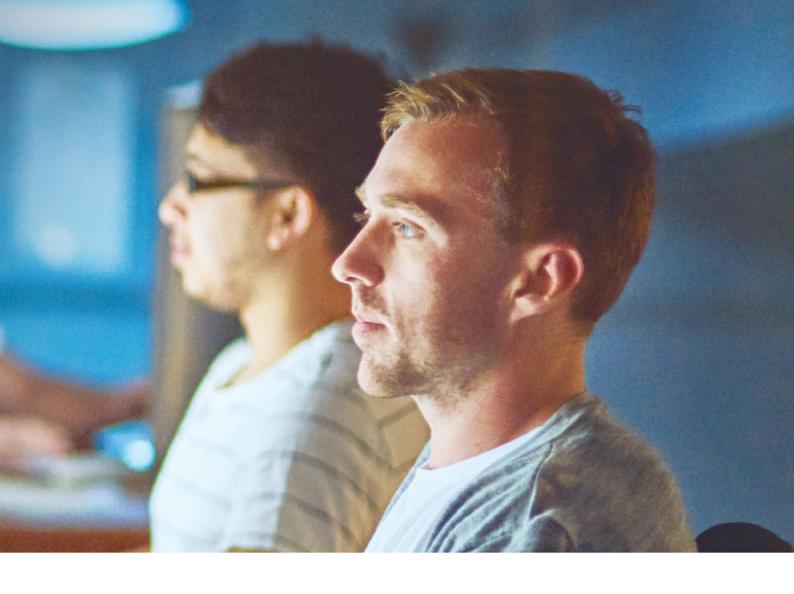
vii Based on the 2019 Indeed and Advance study and interviews with 22 Australians living in the United States by the United States Studies Centre (USSC) at the University of Sydney undertaken for the IPC. The Indeed and Advance study outlined in the report They Still Call Australia Home captures the experience of 440 returned or returning home Australian expats and 331 recruitment decision makers surveyed. Advance is a not-for-profit organisation that connects, supports and celebrates the achievements of Australia's diaspora living and working around the world, while Indeed is an American company that provides a worldwide employment-related search engine.



COVID-19 has fundamentally changed where people work, what work they perform and brought international travel to a standstill.

> With the shift to remote working there are some promising developments, opening the door to global talent that was previously closed.

Indeed, many countries and cities are actively responding to the global war for talent with increased efforts at attracting and retaining talent to help accelerate economic recovery post-COVID.



Investment NSW coordinates NSW Government's efforts to position the State in the global economy and cement Sydney as Australia's global hub. It primarily focuses on growing world-leading industries and businesses, building an export culture, developing local skills for the future and attracting investment.

NSW Government undertakes talent attraction activities, however, these are dispersed across various teams and branding and promotion of Sydney and New South Wales as a location for global talent is underdeveloped.

To help Investment NSW succeed, the IPC recommends embedding talent attraction and retention within it and establishing activities and support to help attract the world's best and brightest to help achieve a sustainable economic recovery from the pandemic.

This report provides examples of campaigns which New South Wales could model, such as Talent Scotland, Talent Montréal, Talent Boost Finland, Tech Life Ireland, Amsterdam Works, and New Zealand's LookSee initiative.



Recommendation 1

Embed attracting and retaining talent in Investment NSW

This research identified that many international cities and regions have organisations dedicated to developing strategies that attract and retain talent. Such organisations are often established by either the city's economic development organisation, an arm of government, or a partnership between government and industry. The NSW Government undertakes several programs and services which touch on various aspects of talent attraction and retention, but it does not look at this issue holistically.

The NSW Government has an opportunity to embed global talent attraction and retention within Investment NSW, established to drive all trade and investment attraction activities with the NSW Government.

Develop a clear picture of the skills to target

This work should include analysis to identify what talent and skills New South Wales needs to pursue, in conjunction with other business attraction efforts, so there is a clear picture of the skills and businesses that are a priority based on our competitive advantages. This analysis will inform the range of initiatives required to better support the State in attracting and retaining exceptional international talent, and to encourage skilled Australians overseas to return. It should also consider how we can best utilise and benefit from the skills from existing permanent skilled migrants and temporary graduate visa holders to realise their true value to our economy.

Key industry strategies should identify the skills, experience, and international connections required to support economic growth

Industry strategies developed by NSW Government to support sectors with a competitive advantage must also consider the skills required. Where needed, they should include strategies to attract global talent with the right skills, experience, and international connections to support these industries to grow. This should feed into the overall picture of the skills needed for New South Wales' economic growth and resilience.

Deliver programs in key markets to attract global talent to Sydney and **New South Wales**

NSW international offices can be utilised to deliver effective programs in key markets to promote Sydney and New South Wales as a location for talent. This could include working with the Commonwealth Government's Austrade to attend international trade shows and expos. NSW overseas missionssuch as those available for NSW exporters, where companies provide a contribution to participate-could also be used to run recruitment missions for employers. Talent Montréal, for example, organises recruiting missions to Europe, the USA, Latin America, and North Africa to promote the benefits of working in Greater Montréal.

Develop connections with NSW expatriates, repatriates, and alumni to build momentum

Networking and connections are important in attracting and retaining global talent. In an increasingly social media savvy world, connecting NSW expatriates, repatriates, and alumni with other interested individuals to build awareness and interest in New South Wales as a place to live, work, and do business can help build momentum under the Global NSW banner. The Global NSW Strategy sits within Investment NSW to promote New South Wales internationally as a place to live, work and invest.

This work could draw from The Victorian Connection model using LinkedIn to connect professional Victorian expatriates, repatriates, and alumni or other initiatives like Connect Ireland that engages the Irish public and diaspora as brand ambassadors, providing financial incentives for every new job created after three years, or Talent Scotland that provides Talent Ambassadors.



Recommendation 2

Better promote and support Sydney and New South Wales as a destination for global talent

Developing the most effective approaches for international promotion and branding of Sydney and New South Wales as a location for talent is vital to attract and retain talent.

This work includes encouraging global talent to move, and supporting their arrival in New South Wales.

This report provides several examples of locations which have sophisticated initiatives that actively brand, promote, and provide a range of information and support to help attract international skilled talent.

The Global NSW website could be used to promote talent attraction, including information on globally competitive jobs and careers, and employers wanting to employ highly skilled workers from overseas. Sub branding talent attraction under Global NSW to Global Talent NSW, like Montreal International's Talent Montreal program could further strengthen this. This provides a 'one-stop shop' of extensive information that is succinct, easily accessible and delivered in an engaging and sophisticated way providing the necessary information to promote the State to global talent and support their move.

Topic areas could include:

- why choose NSW
- · highly skilled jobs in demand
- visas and pathways to migration
- how to have overseas qualifications recognised
- a searchable database of highly skilled jobs
- exemplar companies looking for overseas talent
- case studies and videos of personal and social experiences and guidance on living and working in New South Wales
- related links to initiatives such as Study NSW for international students, and
- information for employers on how to recruit people from overseas, including visas that are available and the processes involved, employment laws, and local skills gaps.





Recommendation 3

Work with and advocate to the **Australian Government** on ways of attracting talent to Australia and **New South Wales**

The Australian Government controls many of the policy levers which influence Australia's and New South Wales' attractiveness as a location for talent. Skilled migration policies, sector-specific visas and residency incentives, personal and corporate tax rates, and childcare policies are just some of the areas which are controlled at the federal level.

The NSW Government routinely liaises with the Australian Government on migration issues. To address policy areas identified in this report that are a deterrent to global talent, the IPC recommends NSW Government proactively work with its federal counterparts on these areas to make attracting talent to Australia and New South Wales easier, particularly the talent needed for our key growth industries.

This work should include providing NSW representation on any State/Territory cross-Government Taskforce that looks at relevant issues, such as the Global Business and Talent Attraction Taskforce. The Taskforce was established as a whole-of-government effort to attract high-yield businesses and exceptional talent to support Australia's post-COVID economic recovery and longer term economic prosperity.





Acknowledgements

This report is based on findings from a staged research and consultation project commissioned by the NSW Innovation and Productivity Council (IPC) on the movement of talent in and out of Australia and New South Wales, and the factors involved in attracting and retaining highly skilled talent.

To better understand talent in the NSW context, the IPC partnered with CSIRO's Data61 to analyse LinkedIn data to gain insights on the destinations for NSW graduates. Special thanks to Professor Paul McCarthy, Colin Griffith, Liz Jakubowski, Kath Cummins, Kellie Kennedy, Deepanjan Chakrabarty, and Rifat Majumder.

The IPC also partnered with the United States Studies Centre (USSC), and not-for-profit organisation Advance.org that connects Australian diaspora overseas, to further build the current picture for New South Wales and Australia. Special thanks to Claire McFarland and Beau Magloire from the USSC, and Catriona Booth and Johanna Pitman from Advance.org.

The findings from these research projects informed consultations with industry stakeholders and key government agencies and the development of this report. Thanks to all who provided input and feedback throughout the project.

Special thanks to the IPC Subcommittee members, who oversaw the foundational research:

- Neville Stevens AO. Chair of the IPC
- Dr Sheree Gregory, School of Business, Western Sydney University
- Dr Paul Corcoran, University of New England
- Dr Martin Bliemel, Faculty of Transdisciplinary Innovation, University of Technology Sydney
- Catriona Booth, Advance.org
- · Johanna Pitman, Advance.org
- Prof Paul McCarthy, CSIRO's Data61

This report was researched and authored by Colette McGrath and Caroline Residovic from the IPC Secretariat within Investment NSW. Darren Bell from the IPC Secretariat managed the project development.

Appendix 1

Research approach to understand global distribution of NSW diaspora

To better understand the movement of talent in New South Wales, the IPC engaged CSIRO's Data61 to undertake analysis of LinkedIn data of graduates of the 11 NSW-based universities. While graduates are not the only source of talent in the State, they do represent an identifiable statistically significant group, while also being the beneficiaries of sunk investments in educational institutions.

The data covers over one million alumni from 99 countries (including Australia) with LinkedIn profiles as at April 2018. Most graduates (84%) from between 2009 and 2017 have a LinkedIn profile, while there is less LinkedIn data for recent graduates from mainland China, where LinkedIn usage is very low.

While there are some limitations regarding how the data can be used and interpreted, the analysis does provide a snapshot of how many NSW graduates are based overseas at any point in time, where the State's talent are located, which professions are more likely to attract emigrants, and the top international employers.

To supplement the analysis of LinkedIn data, the IPC also partnered with the United States Studies Centre (USSC), not-for-profit organisation Advance.org which connects Australian diaspora overseas, and international recruitment company Indeed.

Research included surveys of diaspora and recruitment agencies, and case studies from a range of industry sectors. This research provides additional insights on NSW diaspora, including graduates living overseas, those who have returned home with global experience, the circulating diaspora who have returned home temporarily, and overseas-born alumni of NSW universities who have settled in the State.

Appendix 2

Global talent metrics

There are four key international benchmarks on talent attraction and retention; OECD Indicators of Talent Attractiveness, Global Talent Competitiveness Index (GTCI), Institute for Management Development (IMD) World Talent Ranking, and the Global Human Capital Report.

The OECD Indicators of Talent Attractiveness measures seven areas: quality of opportunities; income and tax; prospects; family environment; skills environment; inclusiveness; and quality of life. The indicators also consider how difficult it is for prospective migrants with the required skills to obtain a visa or residence permit for a country. The OECD benchmarks consider three different talent profiles: workers with graduate (master or doctorate) degrees, entrepreneurs, and university students.²¹⁵

The Global Talent Competitiveness Index²¹⁶ uses a mixture of executive opinion surveys and data and has a strong focus on business attraction, with indices on new business density, foreign ownership, the ease of business establishment, and business/ government relations, with less focus on employment and career opportunities.²¹⁷ Annually produced since 2013 by INSEAD, Adecco Group, and the Human Capital Leadership Institute.

The IMD World Talent Ranking measures a country's investment and development of home-grown talent, attractiveness to overseas talent, and availability of skills and competencies in the talent pool.²¹⁸ It has a particular focus on labour market conditions, though it does not consider the conditions of immigrants (such as unemployment, earnings, and over-qualification) or the attractiveness of tax rates and social benefits in the destination country.²¹⁹ It uses a mixture of executive opinion surveys and data.

Finally, the Global Human Capital Report (2017) measures a country's talent resources according to an individual's ability to acquire, develop, and deploy skills throughout their working life.²²⁰ The 2017 Global Human Capital Report is the latest report in the World Economic Forum's series.

Appendix 3

Skilled migration policies and international student visas in Australia and New South Wales

Skilled migration policies and programs

Australia's migration program is heavily skewed towards skilled migration, with the Skill stream making up more than 68% of total migration in 2018-19. Less than half of these places (46%) went to primary applicants (the remainder of visas in this category went to accompanying family), so that primary applicants on skilled work visas ended up accounting for less than a third of total migration (almost 32% in 2018-19).²²¹ This does not however, take into consideration the skills of the accompanying family members, who may also be tertiary educated and professionally experienced.

In April 2017, the Australian Government announced the abolition of the 457 visa, the most common way for employers to bring skilled workers to Australia temporarily, and adopted 'Australians first' rhetoric.

A new temporary skill shortage visa was introduced, with shorter two-year terms for most occupations and more than 200 jobs removed from the list. In addition, the new two-year visa does not provide a path to permanent residency, although those on the four-year visa option are eligible to apply for permanent residency after three years.^{222,223}

Subsequently, in March 2019 the Australian Government announced a new population policy, which included reducing the migration cap by 15% from a ceiling of 190,000 to 160,000 places. The announcement highlighted that the "... permanent migration rate was down to its lowest level in a decade by focusing on the integrity of the visa system and prioritising Australians for Australian jobs."²²⁴ While overall migration numbers have decreased, there is more focus on attracting highly skilled workers, with the number of Employer Sponsored skilled visa places slightly increasing from 35,528 in 2017-18 to 39,000 in 2019-20.²²⁵

In New South Wales, the activity of migrants who arrive through the Business, Innovation and Investment Program, and the State Skilled Nominated Program, create jobs, boost productivity, and help strengthen the economy.

Under the Skilled Nominated Program, the Commonwealth enables the NSW Government to nominate highly skilled people in a range of occupations. The Skilled Work Regional (Provisional) visa (subclass 491) is particularly valuable to the State's regional economies as it matches skilled migrants against labour market shortages in regional areas. Visa holders can apply for permanent residence after living, studying, working, and meeting an income requirement in regional Australia for at least three years (changed from two years).

Under the Business, Innovation and Investment Program, New South Wales nominates successful business, investor, and entrepreneurial migrants to the Commonwealth for a visa. These migrants deliver significant economic value by either investing in and/or creating new businesses and jobs across the State.

International student visas

The Australian Government's Post-Study Work stream of the Temporary Graduate (subclass 485) visa is the most popular stream, offering eligible international students who have recently graduated with a degree from an Australian institution the right to live, study and work temporarily in Australia. The length of stay depends on the level of qualification but ranges from two years (Bachelor's and Master's degrees) to four years (Doctoral degree).

In 2018-19, 40,821 post-study work visas were granted nationally to the primary applicant. A further 6,641 temporary visas were granted under the separate Graduate stream.²²⁶

From 2021, international students studying at all locations outside Sydney, Melbourne, and Brisbane have been offered an extension on the current two-year Post-Study Work stream of the Temporary Graduate (subclass 485) visa, which applies to Bachelor's and Master's graduates. Eligibility includes international students who studied at a regional campus of a metropolitan university and will require ongoing residence in a regional area.²²⁷

References

- Stiftung, B. (2019). "How do OECD countries compare in their attractiveness for 1 talented migrants", OECD Migration Policy Debates. No.19. https://www.oecd.org/els/ mig/migration-policy-debates-19.pdf
- 2 NSW Treasury. (2019). "NSW 2040 Economic Blueprint". State of New South Wales, Australia.
- 3 Committee for Economic Development of Australia (CEDA). (2021). "A good match: Optimising Australia's permanent skilled migration". CEDA, Melbourne. https://www. ceda.com.au/Admin/getmedia/150315bf-cceb-4536-862d-1a3054197cd7/CEDA-Migration-report-26-March-2021-final.pdf
- 4 The Conference Board (2020) Survey: Business Leaders Start 2020 with Lingering Concerns About Talent Shortages & Recession Risk, access 12 June 2020 https://conference-board.org/press/c-suite-survey-2020
- 5 Keller, S. & Meaney, M. (2017). "Attracting and retaining the right talent". McKinsey & Company. https://www.mckinsey.com/business-functions/organization/our-insights/ attracting-and-retaining-the-right-talent#
- 6 Garton, E. and Mankins, M. (2020). "The Pandemic Is Widening a Corporate Productivity Gap". Harvard Business Review. https://hbr.org/2020/12/the-pandemic-is-widening-acorporate-productivity-gap
- 7 Stayner, T. (2020). "How a little-known visa program could be the answer for Hongkongers hoping to move to Australia". SBS News. https://www.sbs.com.au/news/ how-a-little-known-visa-program-could-be-the-answer-for-hongkongers-hoping-tomove-to-australia
- Oxford Economics (2012) Global Talent 2021: How the new geography of talent will 8 transform human resource strategies https://www.oxfordeconomics.com/Media/ Default/Thought%20Leadership/global-talent-2021.pdf
- 9
- 10 Bertelsmann Stiftung, "How do OECD countries compare in their attractiveness for talented migrants", OECD Migration Policy Debates, No.19, OECD Publishing, Paris, 2019 https://www.oecd.org/els/mig/migration-policy-debates-19.pdf
- Kerr, S.P., Kerr, W., Özden, C. and Parsons, C. (2017). "Global talent mobility and human 11 capital agglomeration". VoxEU. viewed 14 May 2020 https://voxeu.org/article/globaltalent-mobility-and-human-capital-agglomeration
- 12 Ibid.
- 13 Ibid.
- 14 Kerr, S., Kerr, W., Ozden, C. and Parsons, C. (2016), "Global Talent Flows". World Bank Policy Research Working Paper. No. 7852. http://documents.worldbank.org/curated/ en/793861475694096298/pdf/WPS7852.pdf
- 15 United Nations, Department of Economic and Social Affairs, Population Division. (2019). "International migrant stock 2019". Accessed 17 February 2021 https://www.un.org/en/development/desa/population/migration/data/estimates2/ docs/MigrationStockDocumentation_2019.pdf
- Australian Bureau of Statistics. (2019, December 19). "Media Release: Australia's population grows by 1.5 per cent". Accessed 17 February 2021 https://www.abs.gov.au/ausstats/abs@.nsf/lookup/3101.0Media%20Release1Jun%20 2019%23:~:text=Australia's%20population%20grew%20by%201.5%20per%20cent%20 during%20the%20year,annual%20increase%20of%20381%2C600%20people.%22
- PwC and Advance. (2018). "Out of sight, out of mind? Australia's diaspora as a pathway to innovation". PwC, p 13. https://www.pwc.com.au/publications/pdf/the-australiandiaspora.pdf

- 18 PwC. (2010). "Talent Mobility 2020: The next generation of international assignments". PricewaterhouseCoopers. https://www.pwc.com/gx/en/managing-tomorrows-people/future-of-work/pdf/talent-mobility-2020.pdf
- Eyers, J. (2021). "Australia can win war for tech talent: Afterpay boss". *Australian Financial Review.* https://www.afr.com/technology/australia-can-win-the-war-for-the-tech-talent-afterpay-boss-says-20210211-p571kj
- 20 Lennox, J. (2020). "More urban sprawl while jobs cluster: working from home will reshape the nation". *The Conversation*. https://theconversation.com/more-urban-sprawl-while-jobs-cluster-working-from-home-will-reshape-the-nation-144409
- 21 Department of Enterprise, Trade and Employment. (2021). "Making Remote Work National Remote Work Strategy". Government of Ireland. https://enterprise.gov.ie/en/Publications/Publication-files/Making-Remote-Work.pdf
- Kovács-Ondrejkovic, O., Strack, R., Baier, J., Antebi, P., Kavanagh, K., López Gobernado, A. (2021). "Decoding Global Talent, Onsite and Virtual". Boston Consulting Group https://www.bcg.com/publications/2021/virtual-mobility-in-the-global-workforce?utm_medium=Email&utm_source=esp&utm_campaign=none&utm_description=ealert&utm_topic=none&utm_geo=global&utm_content=202104&utm_usertoken=CRM_160bac92f18c1c58e61979fe9b4bd4343a34071e
- 23 Jesuthasan, R., Malcolm, T. and Cantrell, S. (2020, April 22). "How the Coronavirus Crisis is Redefining Jobs". *Harvard Business Review.* Accessed 10 August 2020 https://hbr.org/2020/04/how-the-coronavirus-crisis-is-redefining-jobs
- 24 Ampcontrol. (2020, May 5). "Ampcontrol pivots expertise to design ventilators". Accessed 17 February 2021 https://www.ampcontrolgroup.com/ampcontrol-pivots-for-ventilators/
- 25 INSEAD. (2021). "The Global Talent Competitiveness Index 2021: Talent Competitiveness in Times of COVID". Fontainebleau, France.
- 26 IMD. "IMD World Talent Ranking 2020". Accessed 25 October 2021, https://www.imd. org/centers/world-competitiveness-center/rankings/world-talent-competitiveness/
- 27 World Economic Forum. (2017). "The Global Human Capital Report 2017". World Economic Forum, Geneva.
- 28 NSW Productivity Commission. (2020). "Productivity Commission Green Paper Continuing the productivity conversation". NSW Treasury, Sydney. http://productivity.nsw.gov.au/sites/default/files/2020-11/Productivity%20Green%20Paper_Consolidated.pdf
- 29 INSEAD. (2021). "The Global Talent Competitiveness Index 2021: Talent Competitiveness in Times of COVID". Fontainebleau, France.
- 30 Bertelsmann Stiftung. (2019). "How do OECD countries compare in their attractiveness for talented migrants". *OECD Migration Policy Debates,* No.19. OECD Publishing, Paris. https://www.oecd.org/els/mig/migration-policy-debates-19.pdf
- 31 IMD World Talent Ranking 2020". Accessed 25 October 2021, https://www.imd.org/centers/world-competitiveness-center/rankings/world-talent-competitiveness/
- 32 OECD/European Union. (2018). "Settling In 2018: Indicators of Immigrant Integration", OECD Publishing, Paris/European Union, Brussels.
- Franzoni, C., Scellato, G. and Stephan, P. (2012). "Foreign Born Scientist: Mobility Patterns for Sixteen Countries", *National Bureau of Economic Research (NBER)*, Working Paper No 18067. https://www.nber.org/papers/w18067
- Committee for Economic Development of Australia (CEDA). (2021). "A good match: Optimising Australia's permanent skilled migration". CEDA, Melbourne. https://www.ceda.com.au/Admin/getmedia/150315bf-cceb-4536-862d-1a3054197cd7/CEDA-Migration-report-26-March-2021-final.pdf
- 35 INSEAD. (2021). "The Global Talent Competitiveness Index 2021: Talent Competitiveness in Times of COVID". Fontainebleau, France.
- Tuccio, M. (2019). "Measuring and assessing talent attractiveness in OECD countries". OECD Social, Employment and Migration Working Papers, No. 229. OECD Publishing, Paris.

- 37 INSEAD. (2021). "The Global Talent Competitiveness Index 2021: Talent Competitiveness in Times of COVID". Fontainebleau, France.
- 38 Strack, R., Antebi, P., Kataeva, N., Kovács-Ondrejkovic, O., Lopez, A. and Welch, D. (2019). "Decoding Digital Talent: What 27,000 digital experts in 180 countries tell us about their mobility and work preferences". Boston Consulting Group. https://image-src.bcg.com/Images/BCG-Decoding-Digital-Talent-May-2019-R-2_tcm20-219578.pdf
- 39 INSEAD. (2020). "The Global Talent Competitiveness Index 2020". Fontainebleau, France.
- 40 INSEAD. (2021). "The Global Talent Competitiveness Index 2021". Fontainebleau, France.
- 41 "Australian cities slide in global cost-of-living rankings" (2019, June 26). *The New Daily*. Accessed 16 February 2021, https://thenewdaily.com.au/finance/consumer/2019/06/26/mercer-cost-of-living-index/
- 42 Committee for Sydney. (2019). "Benchmarking Sydney's Performance 2019". Committee for Sydney, Sydney. https://www.sydney.org.au/wp-content/uploads/2019/11/Committee_Benchmarking2019_web.pdf
- 43 "Australian cities slide in global cost-of-living rankings" (2019, June 26). *The New Daily.*Accessed 16 February 2021, https://thenewdaily.com.au/finance/consumer/2019/06/26/mercer-cost-of-living-index/
- 44 InterNations, 2019, Expat Insider 2019, InterNations GmbH, Munich, viewed 4 May 2020, https://cms-internationsgmbh.netdna-ssl.com/cdn/file/cms-media/public/2019-09/Expat-Insider-2019_The-InterNations-Survey_0.pdf
- 45 OECD. "Benefits and wages". Accessed 17 February 2021 https://www.oecd-ilibrary.org/employment/net-childcare-costs/indicator/english_e328a9ee-en
- 46 Ibid.
- 47 European Commission. "Sweden". Accessed 17 February 2021 https://eacea.ec.europa.eu/national-policies/eurydice/content/organisation-programmes-pre-primary-education-1_en
- 48 Ibid
- 49 PwC. (2016). Our Diaspora's Got Talent: Australia's Advantage in Asia, cited in PwC & Advance. (2018). "Out of sight, out of mind? Australia's diaspora as a pathway to innovation".
- PwC and Advance. (2018). "Out of sight, out of mind? Australia's diaspora as a pathway to innovation". PwC. https://www.pwc.com.au/publications/pdf/the-australian-diaspora.pdf
- Unpublished foundational research by Data 61 and CSIRO. (2018). "Talent Flows New South Wales: Report for the NSW Innovation & Productivity Council". Sydney.
- 52 Ibid.
- 53 Ibid.
- 54 Ibid.
- 55 Ibid.
- Tertiary Education Quality and Standards Agency. (2018). "Statistics report on TEQSA registered higher education providers August 2018". Australian Government, Melbourne, p 61. https://www.teqsa.gov.au/sites/default/files/statistics-report-2018-web.pdf?acsf_files_redirect
- 57 Ibid.
- 58 Ibid.
- 59 Bertelsmann Stiftung. (2019). "How do OECD countries compare in their attractiveness for talented migrants". *OECD Migration Policy Debates,* No.19. OECD Publishing, Paris. https://www.oecd.org/els/mig/migration-policy-debates-19.pdf
- 60 INSEAD. (2021). "The Global Talent Competitiveness Index 2021: Talent Competitiveness in Times of COVID". Fontainebleau, France.

- 61 Redrup, Y. (2019, July 6). "Entrepreneurship visa fails to attract offshore talent". Australian Financial Review. https://www.afr.com/technology/entrepreneurship-visa-fails-to-attract-offshore-talent-20190711-p5266s
- 62 Government of Canada. List of designated organizations. Accessed 16 February 2021, https://www.canada.ca/en/immigration-refugees-citizenship/services/immigrate-canada/start-visa/designated-organizations.html
- 63 InterNations. (2019). "Expat Insider 2019". InterNations GmbH, Munich. https://cms-internationsgmbh.netdna-ssl.com/cdn/file/cms-media/public/2019-09/Expat-Insider-2019_The-InterNations-Survey_0.pdf
- 64 INSEAD. (2021). "The Global Talent Competitiveness Index 2021: Talent Competitiveness in Times of COVID". Fontainebleau, France.
- Australian Government Department of Home Affairs, Immigration and citizenship website. (2022). Priority Migration Skilled Occupation List. Accessed 20 January 2022. https://immi.homeaffairs.gov.au/visas/employing-and-sponsoring-someone/sponsoring-workers/pmsol
- Australian Government Department of Home Affairs, Immigration and Citizenship website, Visas for innovation. (2020). https://immi.homeaffairs.gov.au/visas/working-in-australia/visas-for-innovation/overview
- Business Wire. (2020). "Australia's Global Talent Visa Program Sees Tech CEOs Swap Silicon Valley for Sydney". A Berkshire Hathaway company. https://www.businesswire.com/news/home/20201028005616/en/Australia%E2%80%99s-Global-Talent-Visa-Program-Sees-Tech-CEOs-Swap-Silicon-Valley-for-Sydney
- 68 Ibid
- 69 Clark, G., Moonen, T. and Nunley, J. (2018). "The Innovation Economy: Implications and Imperatives for States and Regions". NSW Innovation and Productivity Council, Sydney. https://www.treasury.nsw.gov.au/sites/default/files/2020-10/Full-Report-IPC-The-Innovation-Economy-2018.pdf
- 70 Repucci, S. (2016). "Democracy is Good for Business". *Freedom House*.

 Accessed 10 June 2020 https://freedomhouse.org/article/democracy-good-business
- VelocityGlobal. (2020, February 28). "What the Hong Kong Protests Mean for International Businesses". Accessed 10 June 2020, https://velocityglobal.com/blog/what-the-hong-kong-protests-mean-for-international-businesses/
- 72 Ibid.
- Woo, Jung-Yeop. (2010). "The Impact of Corruption on a Country's FDI Attractiveness: A Panel Data Analysis, 1984-2004". *Journal of International and Area Studies.* Vol. 17, No. 2, pp.71-91. http://s-space.snu.ac.kr/bitstream/10371/96495/1/5.The-Impact-of-Corruption-on-a-Country%e2%80%99s-FDI-Attractiveness-A-Panel-Data-Analysis-1984-2004-Jung-Yeop-Woo.pdf
- 74 Ghani, E. (2018, November 23). "The global talent race heats up as countries and businesses compete for the best and brightest". World Economic Forum. Accessed 10 June 2020, https://www.weforum.org/agenda/2018/11/the-global-talent-race/
- 75 Chamberlain, A. (2017). "What Matters More to Your Workforce than Money". Harvard Business Review. https://hbr.org/2017/01/what-matters-more-to-your-workforce-than-money".
- 76 Tuccio, M. (2019). "Measuring and assessing talent attractiveness in OECD countries". OECD Social, Employment and Migration Working Papers, No. 229. OECD Publishing, Paris.
- 77 Kerr, S., Kerr, W., Ozden, C. and Parsons, C. (2016). "Global Talent Flows". Policy Research Working Paper, No. 7852. World Bank Group. http://documents. worldbank.org/curated/en/793861475694096298/pdf/WPS7852.pdf
- 78 Ibid.
- 79 Collaborative Economics. (2020). *Silicon Valley Competitiveness and Innovation Project* 2020 Update. Accessed 15 May 2020

- 80 Ministry of Economic Affairs and Employment of Finland. "Talent Boost Programme". Accessed 10 June 2020, https://tem.fi/en/talent-boost-en
- 81 Business Finland. "About Talent Boost". Accessed 10 June 2020, https://www. businessfinland.fi/en/for-finnish-customers/services/programs/talent-boost-finland/ about-talent-boost/
- 82 Business Finland. "Talent Explorer". Accessed 10 June 2020 https://www. businessfinland.fi/en/for-finnish-customers/services/funding/explorer/talent-explorer/
- NSW Productivity Commission. (2020). "Productivity Commission Green Paper - Continuing the productivity conversation". NSW Treasury, Sydney. http://productivity.nsw.gov.au/sites/default/files/2020-11/Productivity%20Green%20 Paper_Consolidated.pdf
- World Bank. (2020). "Doing Business 2020". World Bank, Washington DC. https://www.doingbusiness.org/en/reports/global-reports/doing-business-2020
- 85 Ibid.
- 86 Ibid.
- 87 Ibid.
- 88 Tuccio, M. (2019). "Measuring and assessing talent attractiveness in OECD countries". OECD Social, Employment and Migration Working Papers, No. 229. OECD Publishing, Paris.
- 89 Australian Bureau of Statistics. (2020). Media release 17 December 2020: Australia's population grew by 1.3 per cent https://www.abs.gov.au/media-centre/media-releases/ australias-population-grew-13-cent
- 90 Rizvi, A. (2020). "Overseas students what is happening and why it matters to our economy". Independent Australia website. https://independentaustralia.net/ life/life-display/overseas-students--what-is-happening-and-why-it-matters-to-oureconomy,14166
- Truu, M. (2020). "Australia's net migration intake drops to negative levels for the first time since World War II". SBS News website https://www.sbs.com.au/news/australia-snet-migration-intake-drops-to-negative-levels-for-the-first-time-since-world-war-ii
- 92 Ibid.
- 93 Love, S. and Spinks, H. (2020). "Immigration: Budget Review 2020-21 Index". Net Overseas Migration, Parliament of Australia. Accessed 17 February 2021 https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/ Parliamentary_Library/pubs/rp/BudgetReview202021/Immigration
- 94 Chung, F. (2020). "'Long-lasting' coronavirus migration impacts could result in 1.7 million lost Aussies by 2031". Nationwide News. https://www.news.com.au/finance/ economy/australian-economy/longlasting-coronavirus-migration-impacts-could-resultin-17-million-lost-aussies-by-2031/news-story/2f497538374839cf3f0e830e890305e5
- 95 Marin-Guzman, D. and Durkin, P. (2017). "Brain Drain Australia and the new world of global talent". Australian Financial Review. Accessed 28 May 2020, https://www.afr. com/news/economy/employment/brain-drain-australia-and-the-new-world-of-globaltalent-20170518-gw7of7
- 96 Immigration.ca. "Canada To Dramatically Increase Immigration to More Than 400,000 Per Year". Accessed 31 May 2021 https://www.immigration.ca/canada-to-dramaticallyincrease-immigration-to-more-than-400000-per-year
- 97 Ibid.
- 98 Bergquist, E. (2021, June 1). "Six New Pathways Allowing 90,000 Canada PR". VisaPlace. Accessed 31 May 2021 https://www.visaplace.com/blog-immigration-law/six-newpathways-90000/

- 99 Meheut, C. (2020, December 23). "After helping France battle coronavirus, hundreds of migrants have had citizenship bids fast-tracked" SBS News. Accessed 31 May 2021 https://www.sbs.com.au/news/after-helping-france-battle-coronavirus-hundreds-of-migrants-have-had-citizenship-bids-fast-tracked
- 100 Truu, M. (2021, March 7). "'Goodbye, Australia': The migrants giving up on the Australian dream for Canada" SBS News. Accessed 31 May 2021 https://www.sbs.com.au/news/goodbye-australia-the-migrants-giving-up-on-the-australian-dream-for-canada
- 101 Australian Bureau of Statistics. (2020). "Characteristics of recent migrants". Released 12 June 2020. Accessed 26 June 2020 https://www.abs.gov.au/ausstats/abs@.nsf/lookup/6250.0Media%20Release1Nov%202019
- 102 Kinner, C. (2015). "Crossroads: An action plan to develop a vibrant tech start-up ecosystem in Australia". *StartupAUS*. https://s3-ap-southeast-2.amazonaws.com/startupaus/StartupAus_Crossroads_report_Digital_Edition.pdf
- 103 Fitzsimmons, C. (2021, August 8). "Skilled workers locked out of Australia as 'global talent' visas surge". *Sydney Morning Herald*. https://www.smh.com.au/national/skilled-workers-locked-out-of-australia-as-global-talent-visas-surge-20210803-p58fh6.html
- 104 Caviggioli, F., Jensen, P. and Scellato, G. (2020). "Highly skilled migrants and technological diversification in the US and Europe". *Technological Forecasting & Social Change*, Vol. 154, May 2020. https://www.sciencedirect.com/science/article/pii/ S0040162519307784#bib0024
- Nicolaci da Costa, P. (2019). "Tech Talent Scramble: Global competition for a limited pool of technology workers is heating up". *International Monetary Fund*, Vol. 56, No. 1. https://www.imf.org/external/pubs/ft/fandd/2019/03/global-competition-fortechnology-workers-costa.htm
- 106 La French Tech. "French Tech Visa". Accessed 15 January 2021 https://lafrenchtech.com/en/how-france-helps-startups/french-tech-visa/
- 107 Dillet, R. (2019, March 6). "France overhauls its special visa for tech talent". *Techcrunch*. Accessed 16 February 2021 https://techcrunch.com/2019/03/05/france-overhauls-its-special-visa-for-tech-talent/
- 108 Tech Nation. "Tech Nation Visa". Accessed 15 January 2021 https://technation.io/visa/
- 109 Tech Nation. (2020). "Impact Report". Accessed 10 June 2020 https://technation.io/impact-report/#introduction
- Nicolaci da Costa, P. (2019). "Tech Talent Scramble: Global competition for a limited pool of technology workers is heating up". *International Monetary Fund*, Vol. 56, No. 1. https://www.imf.org/external/pubs/ft/fandd/2019/03/global-competition-fortechnology-workers-costa.htm
- 111 Hankewitz, S. (2020). "Estonia to implement a digital nomad visa". *Estonian World*. Accessed 5 June 2020 https://estonianworld.com/business/estonia-to-implement-a-digital-nomad-visa/
- 112 Spinks, R. (2018). "Digital nomads can soon 'make it official' with a new visa from Estonia". *Quartz*. Accessed 5 June 2020 https://qz.com/quartzy/1216964/estonia-is-launching-a-digital-nomad-visa/
- Johanson, M. (2021, February 2). "Finland is offering foreign talent a chance to try out life in its capital for 90 days. Could this help the Nordic nation lure more professional?". Worklife, BBC. Accessed 25 February 2021 https://www.bbc.com/worklife/article/20210121-finlands-radical-plan-to-lure-global-talent
- 114 Ibid.
- Baldassarre, G. (2017, February 16). "Wellington launches LookSee recruitment program to attract global tech talent". *StartupDaily.* Accessed 5 June 2020 https://www.startupdaily.net/2017/02/wellington-looksee-recruitment-tech-talent/
- Winter, C. (2017, July 3) "First LookSee Wellington offers accepted, more to come, Wreda says". *Stuff.* Accessed 5 June 2020 https://www.stuff.co.nz/business/94290232/first-looksee-wellington-offers-accepted-more-to-come-wreda-says

- 117 Winter, C. (2017, February 7). "Ratepayers pick up bill for international IT specialists' Wellington job hunt". *Stuff.* Accessed 5 June 2020 https://www.stuff.co.nz/business/89095298/international-it-specialists-flown-to-wellington-for-recruitment-offers
- 118 Haines Attract. "LookSee New Zealand". Accessed 5 June 2020 https://hainesattract.co.nz/our-services
- Tuccio, M. (2019). "Measuring and assessing talent attractiveness in OECD countries". OECD Social, Employment and Migration Working Papers, No. 229. OECD Publishing, Paris.
- 120 European Union. (2016). "Best practices in talent attraction, development and retention", p 12. Accessed 20 May 2020 https://internationalcommunity.dk/Admin/Public/Download.aspx?file=Files%2FFiles%2FPDFer%2FInternational+best+practices+for+talent+attraction+and+retention+2016+(05.10.16).pdf
- 121 EY. (2019). "Switzerland: Work permit quota update for 2019 and outlook for 2020". Mobility: Immigration alert. Accessed 5 June 2020 https://www.ey.com/en_gl/tax-alerts/hc-alert--switzerland--work-permit-quota-update-for-2019-and-outlook-for-2020
- 122 KPMG. (2019). "FDI & Ireland the numbers". Accessed 5 June 2020 https://home.kpmg/ie/en/home/insights/2019/11/irelands-fdi-success-story.html
- 123 Nicolaci da Costa, P. (2019). "Tech Talent Scramble: Global competition for a limited pool of technology workers is heating up". *International Monetary Fund,* Vol. 56, No. 1. https://www.imf.org/external/pubs/ft/fandd/2019/03/global-competition-fortechnology-workers-costa.htm
- 124 European Union. (2016). "Best practices in talent attraction, development and retention", p 11. Accessed 20 May 2020 https://internationalcommunity.dk/Admin/Public/Download.aspx?file=Files%2FFiles%2FPDFer%2FInternational+best+practices+for+talent+attraction+and+retention+2016+(05.10.16).pdf
- 125 Glaser, S. (2020, January 12). "Destination Cleveland launches 'talent attraction' effort to boost region's workforce". Cleveland. Accessed 16 January 2021 https://www.cleveland.com/business/2020/01/destination-cleveland-launches-talent-attraction-effort-to-boost-regions-workforce.html
- The Economist. (2019, August 1). "Portugal tries to lure emigrants back" Accessed 5 June 2020 https://www.economist.com/finance-and-economics/2019/08/01/portugal-tries-to-lure-emigrants-back
- 127 Kehoe, J. (2019). "Australia's tax take is second-highest in world". *Australian Financial Review.* Accessed 16 July 2020 https://www.afr.com/policy/economy/tax-slug-on-income-and-profits-second-highest-in-world-20191205-p53h32
- 128 Independent Ireland. (2020, March 16) "Ireland the largest software exporter".

 Accessed 5 June 2020 https://www.independent.ie/business/ireland-the-largest-software-exporter-26122125.html
- 129 "I am Amsterdam" website. Accessed 5 June 2020 https://www.iamsterdam.com/en/work/employment-in-amsterdam
- 130 Talent Scotland website. Accessed 17 February 2021 https://www.talentscotland.com/
- 131 Global Business and Talent Attraction Taskforce website. Accessed 17 February 2021 https://www.globalaustralia.gov.au/
- 132 Global NSW website. Accessed 17 February 2021 https://www.global.nsw.gov.au/about-global-nsw
- Department of Enterprise, Trade and Employment. "Attracting Tech Talent to Ireland". Accessed 17 February 2021 https://dbei.gov.ie/en/What-We-Do/Workplace-and-Skills/Skills-for-Enterprise/Attracting-Tech-Talent-to-Ireland/
- Woods, K. (2016, June 7). "The Government is trying to tempt foreign tech workers here with the craic". FORA. https://fora.ie/tech-life-ireland-jobs-2809952-Jun2016/
- Department of Education and Skills. (2019). "Technology Skills 2022 Ireland's Third ICT Skills Action Plan". Government of Ireland. https://assets.gov.ie/24702/90df5645cbac4ed3bf6fa6f832507933.pdf

- 136 World Media Group. ConnectIreland Case Study 2016. Accessed 17 February 2021 http://world-media-group.com/case-study/connectireland-case-study-2016/
- 137 ConnectIreland. "Gimme the short version". Accessed 17 February 2021 http://www.connectireland.com/packs/ci/Gimme_the_short_version.pdf
- 138 Talent Scotland website. Accessed 17 February 2021 https://www.talentscotland.com/
- Australian Bureau of Statistics. (2020). "Characteristics of recent migrants". Released 12 June 2020. Accessed 26 June 2020 https://www.abs.gov.au/ausstats/abs@.nsf/lookup/6250.0Media%20Release1Nov%202019
- 140 Singapore Agency for Science, Technology and Research website. "A*STAR International Fellowship". Accessed 3 June 2020 https://www.a-star.edu.sg/Scholarships/For-Post-doctoral-Studies/A-STAR-International-Fellowship
- Pak Tee Ng. (2011). "Singapore's response to the global war for talent: Politics and education". *International Journal of Educational Development*, Vol 31, p 262-268. Accessed 3 June 2020 https://cpb-us-e1.wpmucdn.com/blogs.ntu.edu.sg/dist/3/1418/files/2016/12/3.-Singapore%E2%80%99s-response-to-the-global-war-for-talent-Politics-and-education-2h9rokj.pdf
- 142 Ibid.
- 143 Singapore Agency for Science, Technology and Research website. "A*STAR International Fellowship". Accessed 3 June 2020 https://www.a-star.edu.sg/Scholarships/For-Post-doctoral-Studies/A-STAR-International-Fellowship
- 144 Singapore Global Network website. "Funding Programme". Accessed 3 June 2020 https://www.singaporeglobalnetwork.gov.sg/funding/
- European Union. (2016). "Best practices in talent attraction, development and retention", p 15. Accessed 20 May 2020 https://internationalcommunity.dk/Admin/Public/Download.aspx?file=Files%2FFiles%2FPDFer%2FInternational+best+practices+for+talent+attraction+and+retention+2016+(05.10.16).pdf
- 146 Kerr, S., Kerr, W., Ozden, C. and Parsons, C. (2016). "Global Talent Flows". *Policy Research Working Paper,* No. 7852. World Bank Group. http://documents.worldbank.org/curated/en/793861475694096298/pdf/WPS7852.pdf
- Australian Government Department of Education (2019) Research snapshot, accessed 17 June 2020 https://internationaleducation.gov.au/research/Research-Snapshots/Documents/Education%20infographic%20Australia%202018%E2%80%9319.pdf
- 148 Australian Government Department of Education and Training. (2019). "Research snapshot: Jobs supported by international students studying in Australia". Accessed 17 June 2020 https://internationaleducation.gov.au/research/Research-Snapshots/Documents/RS_Job%20supported%202018.pdf
- 149 Hall, R. and Godfrey, A. (2019). "Edu-tourism and the impact of international students". International Education of Australia. Accessed 6 August 2020 https://broadenourhorizons.com.au/edu-tourism-and-the-impact-of-international-students/
- 150 Study NSW website. "Resources for employers". Accessed 4 June 2020 https://www.study.sydney/programs/nswglobalconnections/resources-for-employers
- Writersky, S. (2020, March 17). "QS Best Student Cities ranking: 9th". Accessed 26 June 2020 https://www.topuniversities.com/university-rankings-articles/qs-best-student-cities/sydney
- 152 Australian Government Department of Education, Skills and Employment. (2020). "Student numbers". Accessed 17 June 2020 https://internationaleducation.gov.au/research/DataVisualisations/Pages/Student-number.aspx
- 153 Committee for Sydney. (2020, June 1). "A plan to get international students back". Accessed 26 June 2020 https://sydney.org.au/news-events/news/a-plan-to-get-international-students-back/
- 154 Australian Government Treasury and Department of Home Affairs. (2018). "Shaping a Nation". Commonwealth of Australia. https://research.treasury.gov.au/sites/research.treasury.gov.au/files/2019-08/Shaping-a-Nation-1.pdf

- 155 Ferguson, H. and Sherrell, H. (2019, June 20). "Overseas students in Australian higher education: a quick guide". Department of Parliamentary Services. Accessed 17 June 2020 https://www.aph.gov.au/About Parliament/Parliamentary Departments/ Parliamentary_Library/pubs/rp/rp1819/Quick_Guides/OverseasStudents
- 156 Chew, J. (2019). "Economic opportunities and outcomes of post-study work rights in Australia". International Education Association of Australia. Accessed 17 June 2020 https://www.ieaa.org.au/documents/item/1715
- 157 Committee for Economic Development of Australia (CEDA). (2021). "A good match: Optimising Australia's permanent skilled migration". CEDA, Melbourne. https://www. ceda.com.au/Admin/getmedia/150315bf-cceb-4536-862d-1a3054197cd7/CEDA-Migration-report-26-March-2021-final.pdf
- 158 Study NSW website. "Global Trade Accelerator Program". Accessed 17 June 2020. http://www.study.sydney/programs/partner-projects/case-studies/global-tradeaccelerator-program
- 159 Study NSW website. "Partner projects". Accessed 17 June 2020. https://www.study.sydney/programs/partner-projects
- 160 Study NSW website. "Temporary Crisis Accommodation Scheme". Accessed 17 February 2021 https://www.study.sydney/programs/covid-19-response-andresources/accommodation
- 161 Department of Education, Skills and Employment website. "Qualifications Recognition". Accessed 17 June 2020 https://internationaleducation.gov.au/services-and-resources/ pages/qualifications-recognition.aspx
- 162 Australian Government Department of Foreign Affairs and Trade website. "Professional Services and Mutual Recognition Unit". Accessed 17 June 2020 https://www.dfat.gov. au/trade/engage/Pages/professional-services-mutual-recognition-unit
- 163 Australian Bureau of Statistics. (2020). "Characteristics of recent migrants". Released 12 June 2020. Accessed 26 June 2020 https://www.abs.gov.au/ausstats/abs@.nsf/ lookup/6250.0Media%20Release1Nov%202019
- 164 Refugee Council of Australia. (2017). "Not Working: Experiences of refugees and migrants with Jobactive". Report No 03/2017. Accessed 11 June 2020 https://www.refugeecouncil.org.au/jobactive-report/2/
- 165 Norwegian Ministry of Education and Research. (2017). "Norwegian Strategy for Skills Policy 2017-2021". Ministry of Education and Research. Accessed 11 June 2020 https://www.regjeringen.no/en/dokumenter/norwegian-strategy-for-skillspolicy-2017---2021/id2527271/
- 166 Rogozinski, D. (2018). "How one tech company used data to find and hire talent around the world". Fast Company https://www.fastcompany.com/90265179/how-one-techcompany-used-data-to-find-and-hire-talent-around-the-world
- 167 Ibid.
- 168 Ibid.
- 169 Strack, R., Booker, M., Kovacs-Ondrejkovic, O., Antebi, P. and Welch, D. (2018). "Decoding global talent 2018". Boston Consulting Group. Accessed 17 February 2021 https://www.bcg.com/publications/2018/decoding-global-talent
- 170 Unpublished foundational research by the United States Study Centre. (2018). International Case Studies.
- 171 Australian Department of Education and Training (2019). 2018 Graduate Outcomes Survey National Report. Accessed 17 February 2021 https://www.qilt.edu.au/ docs/default-source/default-document-library/qilt-gos-national-report-2018. pdf?sfvrsn=23f7ec3c_0
- 172 Tuccio, M. (2019). "Measuring and assessing talent attractiveness in OECD countries". OECD Social, Employment and Migration Working Papers, No. 229. OECD Publishing, Paris.

- 173 Bertelsmann Stiftung. (2019). "How do OECD countries compare in their attractiveness for talented migrants", *OECD Migration Policy Debates*, No.19. OECD Publishing, Paris https://www.oecd.org/els/mig/migration-policy-debates-19.pdf
- 174 Boddy, N. (2020). "How Australia is faring in the war for talent". Australian Financial Review. https://www.afr.com/work-and-careers/careers/how-australia-is-faring-in-the-war-for-talent-20200127-p53v1a
- 175 Strack, R., Booker, M., Kovacs-Ondrejkovic, O., Antebi, P. and Welch, D. (2018). "Decoding global talent 2018". Boston Consulting Group. Accessed 17 February 2021 https://www.bcg.com/publications/2018/decoding-global-talent
- 176 Ibid.
- 177 Ibid.
- 178 Tuccio, M. (2019). "Measuring and assessing talent attractiveness in OECD countries". OECD Social, Employment and Migration Working Papers, No. 229. OECD Publishing, Paris.
- 179 Khoo, S-E. (2014). "Attracting and Retaining Globally Mobile Skilled Migrants: Policy Challenges based on Australian Research". *International Migration*, Vol 52:2 p. 20-30.
- Tuccio, M. (2019). "Measuring and assessing talent attractiveness in OECD countries". OECD Social, Employment and Migration Working Papers, No. 229. OECD Publishing, Paris.
- 181 OECD. (2017). "Making Integration Work: Family Migrants". OECD Publishing, Paris. https://www.oecd.org/migration/making-integration-work-9789264279520-en.htm
- Tuccio, M. (2019). "Measuring and assessing talent attractiveness in OECD countries". OECD Social, Employment and Migration Working Papers, No. 229. OECD Publishing, Paris.
- Johanson, M. (2021, February 2). "Finland is offering foreign talent a chance to try out life in its capital for 90 days. Could this help the Nordic nation lure more professional?". Worklife, BBC. Accessed 25 February 2021 https://www.bbc.com/worklife/article/20210121-finlands-radical-plan-to-lure-global-talent
- 184 Indeed and Advance. (2019). "They Still Call Australia Home". Accessed 17 February 2021. https://advance.org/app/uploads/2020/11/Indeed_Advance-TheyStillCallAustraliaHomeReport-1.pdf
- 185 Unpublished foundational research by the United States Study Centre. (2018). International Case Studies.
- 186 Masjutina, S. (2016, August 9). "Not Just About Money: How Cities Become Leaders in Talent Attraction". The Place Brand Observer. Accessed 17 February 2021 https://placebrandobserver.com/how-cities-become-leaders-talent-attraction/
- 187 Talent Montréal website. "Where life is good". Accessed 17 February 2021 https://talentmontreal.com/fr/vivre/avantages/inclusion-et-securite
- 188 Talent Montréal website. "Family, festive and inclusive". Accessed 17 February 2021 https://talentmontreal.com/fr/vivre
- 189 Page, S. (2008). "The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies New Edition". Princeton University Press.
- 190 Dehaze, A. (2018, January 24). "The path to a shared future is built on diversity and inclusion". *World Economic Forum.* https://www.weforum.org/agenda/2018/01/here-s-why-diversity-is-more-important-than-talent
- 191 INSEAD. (2018). "The Global Talent Competitiveness Index 2018". Fontainebleau, France. Accessed 7 April 2020, https://gtcistudy.com/wp-content/uploads/2018/01/GTCI-2018-web.r1-1.pdf, p 10.
- 192 Dreifus, C. (2008, January 8). "In Professor's Model, Diversity = Productivity".

 The New York Times. https://www.nytimes.com/2008/01/08/science/08conv.html
- 193 Poros, M. (2011). "Migrant Social Networks: Vehicles for Migration, Integration, and Development". Migration Policy Institute. Accessed 1 June 2020 https://www.migrationpolicy.org/article/migrant-social-networks-vehicles-migration-integration-and-development

- 194 Ibid.
- 195 Unpublished foundational research by the United States Study Centre. (2018). International Case Studies.
- 196 Montréal International website. "Greater Montréal's economic promotion agency". Accessed 17 February 2021 https://www.montrealinternational.com/en/about/
- 197 Ibid.
- 198 Montréal International website. "Supporting the integration of foreign workers". Accessed 17 February 2021 https://www.montrealinternational.com/en/work/faciliterlintegration-des-travailleurs-etrangers/
- 199 Ibid.
- 200 Montréal International. (2019). "Montréal International's 2018 Activity Report". Economic Affairs and Marketing Communications Division, Montréal. Accessed 29 May 2020 https://www.montrealinternational.com/en/publications/2018-activity-report/
- 201 Clément, C. (2017). "Recruiting mission: A growing trend". Montreal International. Accessed 2 July 2020 https://www.montrealinternational.com/en/news/recruitingmission-a-growing-trend/
- 202 World Economic Forum. (2019). "Gender Gap Report 2020". World Economic Forum, Geneva. Accessed 28 May 2020, http://www3.weforum.org/docs/WEF_GGGR_2020.pdf
- 203 Ibid.
- 204 Meier, O. (2020). "The Path to Diversity: Women on Assignment". Mercer. Accessed 17 February 2021. https://mobilityexchange.mercer.com/Insights/article/The-Path-to-Diversity-Women-on-Assignment
- 206 World Economic Forum. (2019). "Gender Gap Report 2020". World Economic Forum, Geneva. Accessed 28 May 2020, http://www3.weforum.org/docs/WEF_GGGR_2020.pdf
- 207 Connell, H. and Howson, P. (editors). (2013). "The English Effect". British Council. Accessed 17 February 2021 https://www.britishcouncil.org/sites/default/files/englisheffect-report-v2.pdf
- 208 Nicolaci da Costa, P. (2019). "Tech Talent Scramble: Global competition for a limited pool of technology workers is heating up". International Monetary Fund, Vol. 56, No. 1. https://www.imf.org/external/pubs/ft/fandd/2019/03/global-competition-fortechnology-workers-costa.htm
- 209 Johnsen Garmann, I. (2019). "Talent Attraction Management in Greater Oslo", Oslo Region, Oslo. Accessed 17 February 2021 https://www.osloregionen.no/wp-content/ uploads/Osloregionen-Talent-attraction-managament-report-FINAL-June-2019.pdf
- 210 OECD (2014), Recruiting Immigrant Workers: Norway 2014, Recruiting Immigrant Workers, OECD Publishing, Paris, https://doi.org/10.1787/9789264226135-en
- 211 Connell, H. and Howson, P. (editors). (2013). "The English Effect". British Council. Accessed 17 February 2021 https://www.britishcouncil.org/sites/default/files/englisheffect-report-v2.pdf
- 212 Education First. (2019). "English Proficiency Index 2019". Accessed 29 May 2020 https://www.ef.com/wwen/epi/downloads/
- 213 Indeed and Advance (2019). "The Returned Diaspora Experience". Lonergan Research.
- 214 Advance and PwC. (2018). "Out of sight, out of mind? Australia's diaspora as a pathway to innovation". PricewaterhouseCoopers. https://www.pwc.com.au/publications/pdf/ the-australian-diaspora.pdf
- 215 OECD. "Talent Attractiveness Rankings". Accessed 11 May 2020, http://www.oecd.org/migration/talent-attractiveness/
- 216 INSEAD. (2021). "The Global Talent Competitiveness Index 2021: Talent Competitiveness in Times of COVID". Fontainebleau, France.

- 217 Tuccio, M. (2019). "Measuring and assessing talent attractiveness in OECD countries".

 OECD Social, Employment and Migration Working Papers, No. 229. OECD Publishing, Paris.
- 218 IMD World Talent Ranking 2020". Accessed 25 October 2021, https://www.imd.org/centers/world-competitiveness-center/rankings/world-talent-competitiveness/
- 219 Tuccio, M. (2019). "Measuring and assessing talent attractiveness in OECD countries".

 OECD Social, Employment and Migration Working Papers, No. 229. OECD Publishing, Paris.
- 220 World Economic Forum. (2015). "Human Capital Report 2015". World Economic Forum, Geneva. http://reports.weforum.org/human-capital-report-2015/
- 221 Department of Home Affairs. (2019). "Australia's Migration Trends 2018-19 Highlights". Australian Government, Canberra. Accessed 14 May 2020 https://www.homeaffairs.gov.au/research-and-stats/files/migration-trends-highlights-2018-19.PDF
- 222 Ibid.
- 223 Karp, P. (2017, April 18). "Australian government to replace 457 temporary work visa". The Guardian. Accessed 29 May 2020 https://www.theguardian.com/australianews/2017/apr/18/australian-government-abolish-457-temporary-work-visa
- 224 Prime Minister of Australia. Media release 20 March 2019 "A PLAN FOR AUSTRALIA'S FUTURE POPULATION". Accessed 28 May 2020 https://www.pm.gov.au/media/plan-australias-future-population
- 225 Ibid.
- 226 Australian Government. "Temporary Graduate visa program" Accessed 17 June 2020 https://data.gov.au/dataset/ds-dga-c957d829-4f9b-4213-a0c2-8cbeb9a03ffb/details
- 227 Australian Government Department of Home Affairs. "Regional migration".

 Accessed 17 June 2020 https://immi.homeaffairs.gov.au/visas/working-in-australia/regional-migration

