



Economic Contribution of International Education in Western Australia

June 2020

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THE STRATEGIC AND ECONOMIC CONTEXT

International education is receiving increasing attention from governments around Australia, both in terms of policy reform and direct funding support. Although international education is consistently recognised by states and territories through their economic agendas, differences emerge in the way they choose to enhance the student experience, support market development, undertake overseas marketing and promotion and facilitate industry collaboration.

The sector has been a growing source of export income for Western Australia in recent years. Since coming into power in 2017, the McGowan Government has understood the economic value of the international education sector as a multi-billion dollar growth industry. Export revenue from international education has increased by 51 per cent to \$2 billion in 2018-19 from its most recent low in 2012-13. However, the rest of the nation has been growing faster. By 2018-19 Western Australia's share of international education national export revenue had fallen to 5.3 per cent, from a high of 8.1 per cent in 2009-10.

Over the last two years, deliberate and critical changes have been made in response to Western Australia's loss of market share. In 2018, the WA Government launched its strategy, developed in partnership with StudyPerth, to attract international students to Western Australia and grow the state's share of the international education market – Where Bright Futures Begin: International Education in Perth, Western Australia 2018-2025 (the Strategy).

The Strategy identifies StudyPerth as the lead agency to deliver its objectives. Entrusted to deliver these objectives and implement the Strategy, StudyPerth developed its International Education Action Plan 2019-2025 which was endorsed by the StudyPerth Board and launched by the Premier in 2019.

In May 2019, the Premier announced in the budget an additional \$4.5m funding over three years for StudyPerth, to be matched by a member contribution levy to create new project fund to promote Western Australia as a first-choice study destination. The importance of the international education sector was further recognised as a priority for the WA Government through its identification as one of six priority sectors in the Diversify WA economic development framework. This matches global trends with WA's unique strengths and seeks to create secure and high-quality jobs, as well as a stronger, more resilient economy to ride out the highs and lows of economic cycles and commodity prices.

The sector ended 2019 strong and optimistic; all providers anticipated stimulus from the new WA Government initiatives: the additional funding, the Strategy and Action Plan, the new migration designation and the extension of the State Nominated Migration Pathway (SNMP) Skilled Occupation list.

The initiatives and investment were evidently working - in March 2020 international student commencements were up 4 per cent year on year, whereas nationally there was a 0.8 per cent decrease. Western Australia had turned the corner.

COVID-19 and associated restrictions have forced all organisations to review their operations and plans. This applies to StudyPerth and all our member institutions and partners. The decisions and actions we all take in the near term are likely to affect the success and sustainability of our industry in the longer term. StudyPerth aims to ensure that the international education sector is well positioned to emerge strongly and sustainably from the shadows of COVID-19 and consolidate its position as an important component of a diversified WA economy.

In recognition of the strategic focus that has been increasingly placed on the international education sector, in March 2020 StudyPerth engaged ACIL Allen Consulting (ACIL Allen) to examine the economic contribution of the international education sector in WA.

The economic contribution study will assist StudyPerth in progressing its Recovery and Renewal Plan by explaining the scale and the channels through which the international education sector in Western Australia helps to grow the economy and support job opportunities.

This study has been limited to the economic contribution associated with the spending by international students on the WA economy in terms of its contribution to output and employment across all sectors of the economy for the most recently completed calendar year of 2019.

It should be noted, however, that the economic contribution of international education extends further than by the spending of international students. Some of these benefits, which have not been measured as part of this study, but which should be considered in order to understand the overall economic and social contribution of international education in Western Australia, include:

- A growing source of income to education institutions – which helps to support broader strategic objectives, such as investment in their facilities and infrastructure, and in helping to support important research.
- A critical contribution to academic research. There were 41,574 students enrolled in scientific PhD and Masters degrees in 2018 (latest available) of which 23,066 were from overseas. These students were not just doing research for their own benefit but contributing long running basic and applied research for government and industry.
- An important source of labour for many sectors of the WA economy in terms of seasonal, part time or casual employment. Longer term, the value of international students studying in WA can help to enhance the State's population with some students choosing to migrate.
- A source of demand for housing, helping to stimulate housing activity, which supports thousands of jobs in the building and construction industry.
- Enhancing diversity and a cultural richness to our community, helping to build the State's links and relationships with other countries including key trade partners.
- Researchers who were born overseas but conduct their research in Australia (diaspora scientists) have contributed to global science through the exceptional quantity and quality of their scientific work and through connections to overseas researchers and research.

In estimating the economic contribution of international education, expenditure has been isolated through the two streams of international student expenditure, and visiting friends and relatives (VFR) expenditure. The economic modelling has been undertaken using ACIL Allen's Input-Output (I-O) model of the WA economy (Appendix C). Results were produced by education sub-sector (Higher Education, VET, Schools, ELICOS and Non-award) and by key source market in terms of the direct and indirect impact of international student and VFR expenditure.

International education has been identified as a key component of the WA Government's plan to grow and diversify the State's economy. While the financial impact of international education is significant, the benefits of welcoming an increasing number of international students to WA go well beyond the purely economic. International students bring diversity and a cultural richness to our community, helping to build the State's links and relationships with other countries, especially our trade partners.



- Philip Payne, Chief Executive Officer, StudyPerth

TRENDS IN INTERNATIONAL EDUCATION IN WESTERN AUSTRALIA

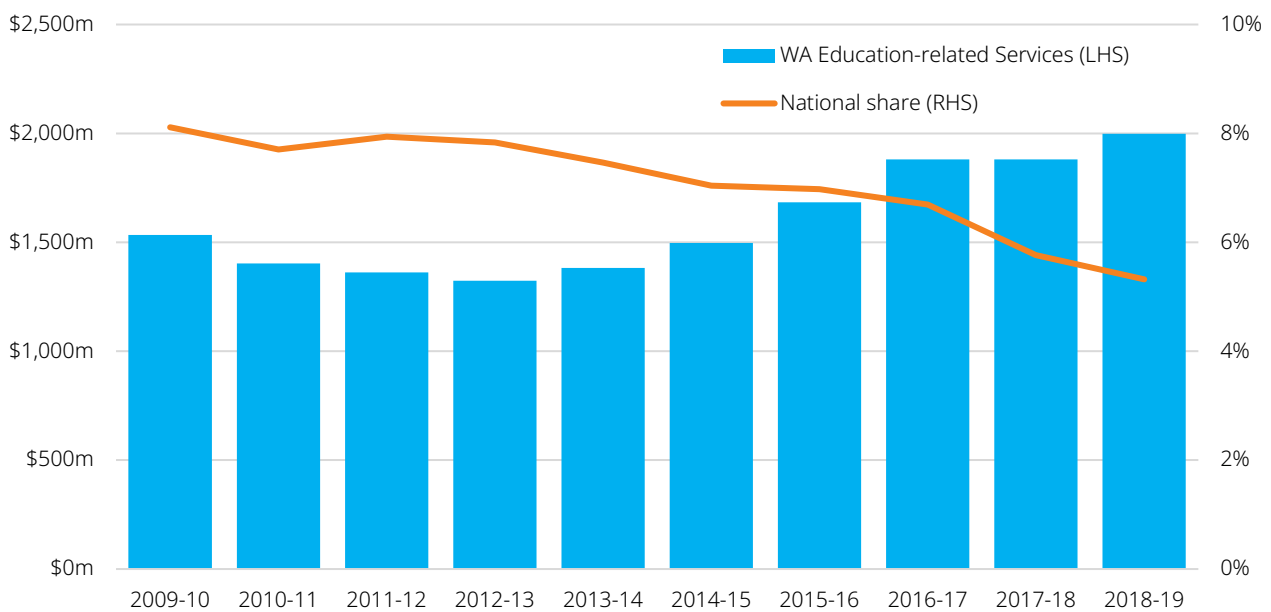
This section explores historical trends in the international education sector in Western Australia, compared with the trends more broadly across Australia and the States and Territories.



1.1 International Education and the WA Economy

International education has been a growing source of export income for Western Australia in recent years. Since its most recent low in 2012-13, export revenue from international education has increased by 51 per cent to \$2 billion in 2018-19 (**Figure 1.1**). However, despite this relatively strong growth in international education exports, by 2018-19 **Western Australia's share of the national export take had fallen to 5.3 per cent of national export revenue from a high of 8.1 per cent in 2009-10**. Western Australia's share of the international education sector compares unfavourably when measured against broader measures, where WA accounts for almost 15 per cent of Australia's GDP and 11 per cent of Australia's population.

FIGURE 1.1 WESTERN AUSTRALIA – INTERNATIONAL TRADE IN SERVICES – EDUCATION-RELATED SERVICES



SOURCE: AUSTRALIAN BUREAU OF STATISTICS

1.2 Enrolments by education sub-sector

In 2019, there were **53,404 international student enrolments** in WA education and training institutions (**Figure 1.2**). While this was a healthy **70 per cent increase from 2005 levels**, this does not compare favourably against the trends nationally where total international student enrolments rose by 176 per cent over the same period.

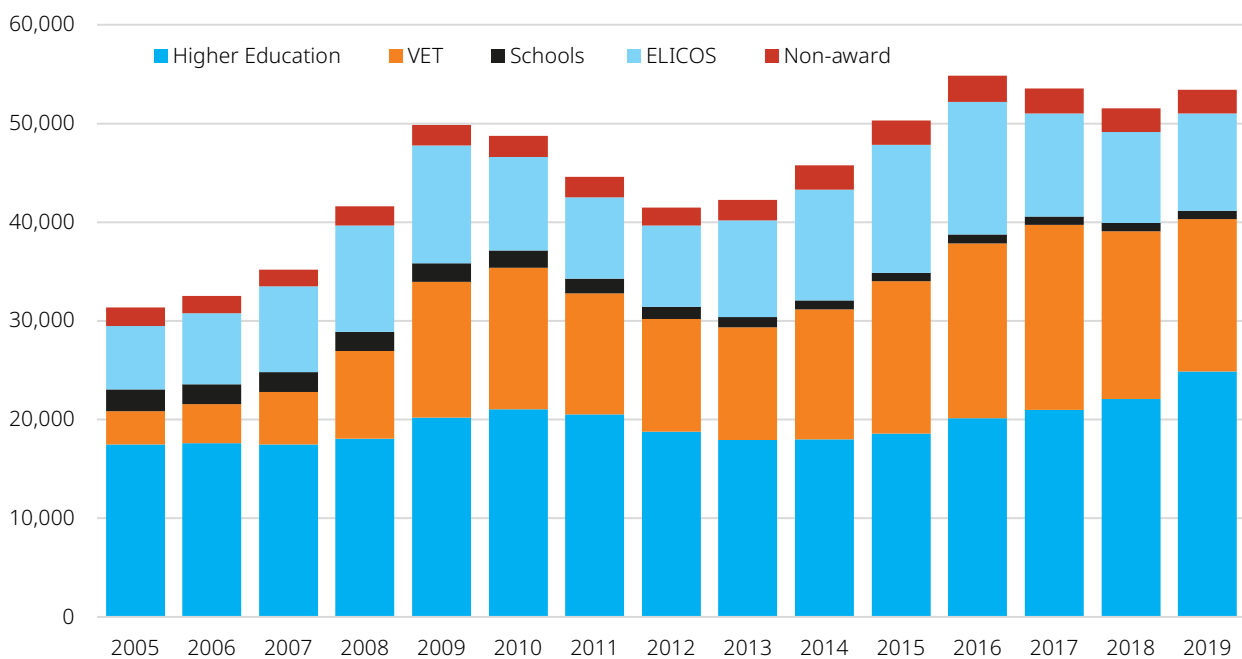
The value gained from international education spreads way beyond the classroom and into our community, to support Australian society, our global standing, diplomatic, trade and investment relationships - all which have been enriched through our international education efforts. While the economic benefits are often spoken about, more importantly and more difficult to calculate, is the lasting legacy of an Australian education in our graduates and how it creates opportunities to enhance Australia's global capabilities on an international stage.

- Rebecca Hall, Head of International Education Centre of Excellence, Australian Trade and Investment Commission (Austrade)

By sub-sector, higher education and vocational education and training (VET) account for the largest shares of total international student enrolments in Western Australia. In 2019, higher education accounted for almost half of all enrolments (46.8 per cent), with VET accounting for a further 29 per cent. **While international students studying in higher education institutions accounts for the largest share of all students, the growth over time (43 per cent) has been well below the growth in VET enrolments of 350 per cent between 2005 and 2019.**

Of the remaining numbers of international students in Western Australia in 2019, they were either enrolled in ELICOS (18.5 per cent), Non-award education (4.5 per cent) and Schools (1.6 per cent). In the period between 2005 and 2019, international student enrolments in VET courses have increased by 350 per cent and in higher education courses by 42.6 per cent.

FIGURE 1.2 WESTERN AUSTRALIA INTERNATIONAL STUDENT ENROLMENTS BY EDUCATION SUB-SECTOR, 2005-2019



SOURCE: DEPARTMENT OF EDUCATION, SKILLS AND EMPLOYMENT

Quite apart from its economic contribution, the international education sector has also been a major catalyst for soft diplomacy which has benefited both the state and the nation.

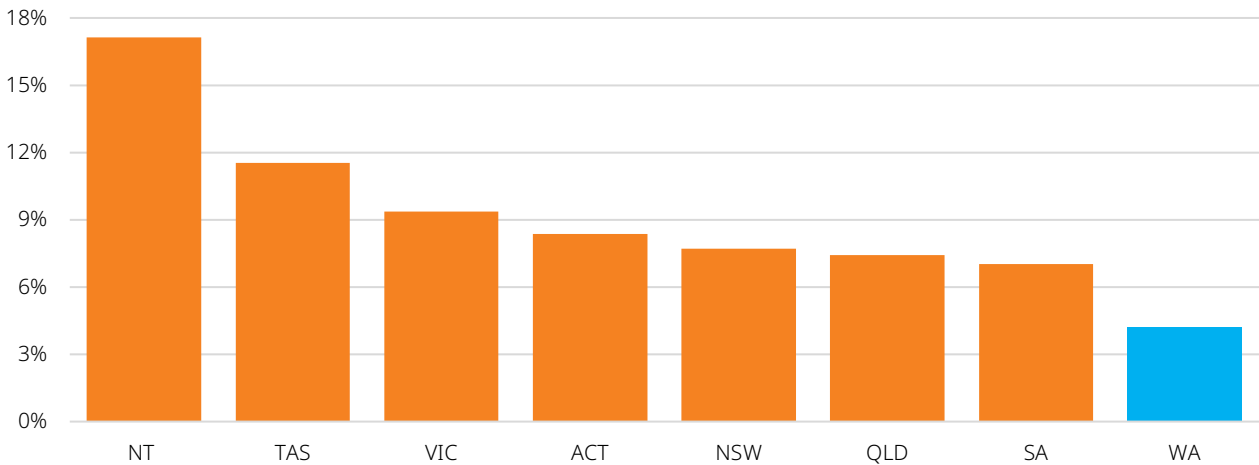
Western Australia's universities and its other education providers (including high schools, English Language Colleges and TAFE) continue to imbue overseas students with our western democracy inspired ideals, ethics and "can do" multicultural spirit.

There is also, increasingly, a happy juxtaposition between the teaching provided by our state's education institutions and the world of work. Global corporations are actively seeking out young graduates with the same above mentioned attributes. These corporations see Australian educated students as having global citizenship attributes which allow them to work effectively in teams across different political systems and cultures.

- Hon. Phil Honeywood, Chief Executive Officer, International Education Association of Australia

Figure 1.3 highlights the trends in the growth in international student enrolments in WA relative to other States and Territories. Between 2005 and 2019, total international student enrolments in Western Australia have increased by 4.2 per cent per annum, which was the **lowest annual rate of growth of any State or Territory**.

FIGURE 1.3 AVERAGE ANNUAL GROWTH RATE OF TOTAL INTERNATIONAL STUDENT ENROLMENTS, 2005-2019

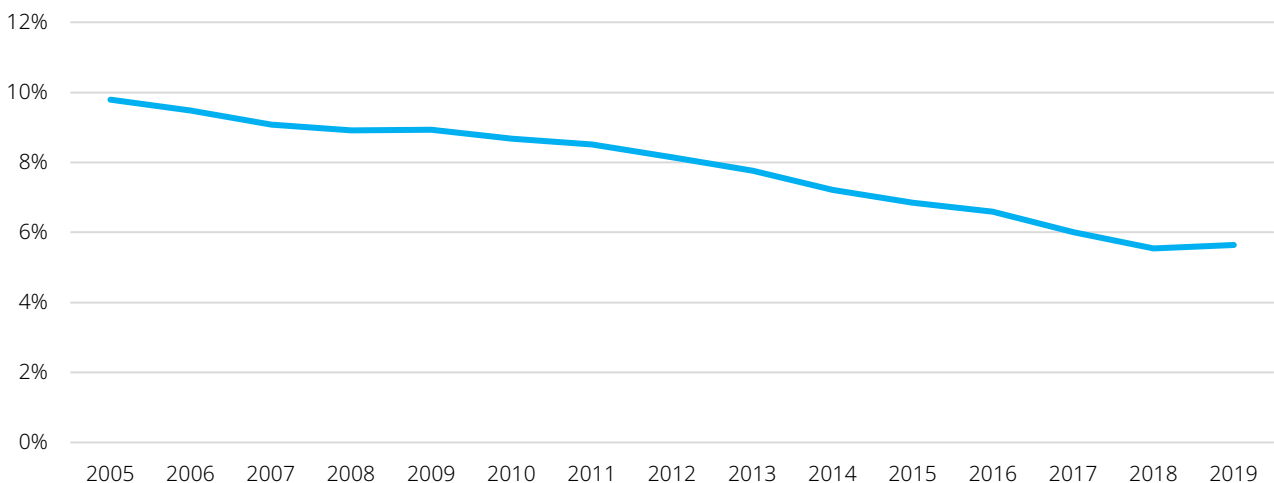


SOURCE: DEPARTMENT OF EDUCATION, SKILLS AND EMPLOYMENT

1.2.1 Higher education

In 2019, there were 24,886 international student enrolments in higher education in Western Australia, equating to 5.6 per cent of the total international student enrolments for higher education in Australia. As presented in **Figure 1.4**, WA's share of the national enrolments from international students in higher education has been in steady decline since 2005 when WA accounted for 9.8 per cent of the national total.

FIGURE 1.4 WESTERN AUSTRALIA SHARE OF INTERNATIONAL STUDENT ENROLMENTS FOR HIGHER EDUCATION IN AUSTRALIA, 2005-2019

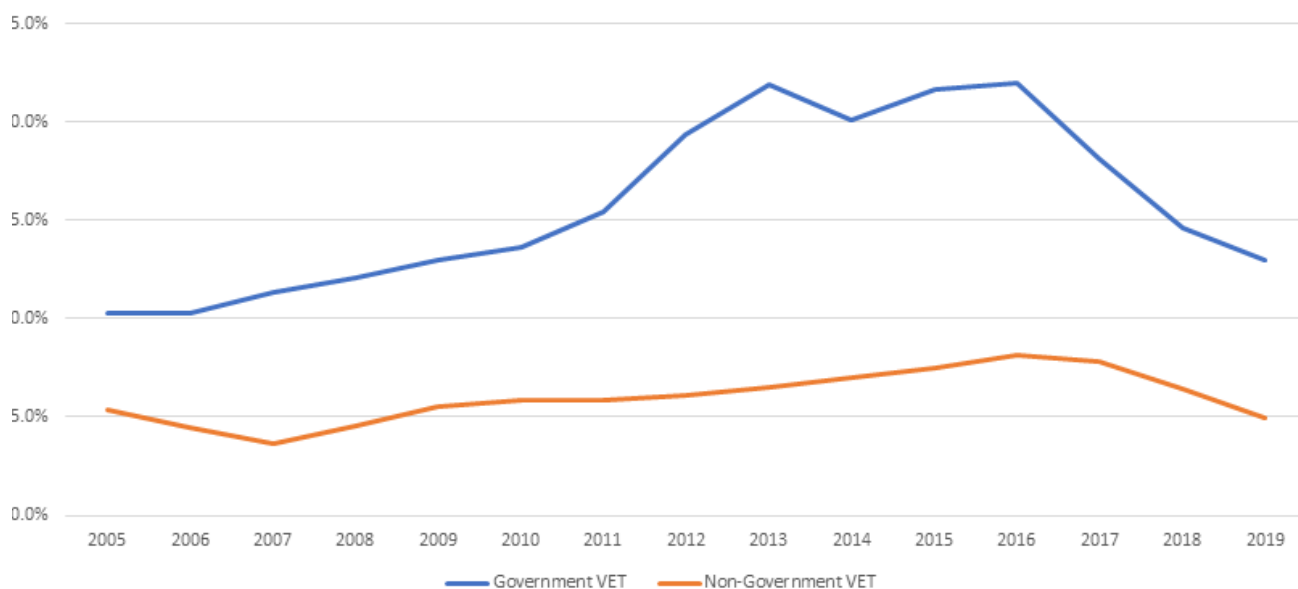


SOURCE: DEPARTMENT OF EDUCATION, SKILLS AND EMPLOYMENT

1.2.2 Vocational education and training (VET)

In 2019, there were **15,406 international student enrolments in VET in Western Australia**, equating to 5.4 per cent of the total international student enrolments for VET in Australia. 2,139 of these enrolments were Government VET and 13,267 were non-Government VET, equating to 13.0 per cent and 5.0 per cent of the total international Government and non-Government VET enrolments in Australia, respectively. As presented in **Figure 1.5**, WA's share of the national enrolments from international students in non-Government VET experienced a strong period of growth from 2007 to 2016 where WA's share increased from 3.6 per cent to 8.1 per cent (non-Government VET). Government VET experienced a similar strong period of growth from 2006 to 2013 where WA's share increased from 10.2 per cent to 21.9 per cent. Since 2016, WA's share of national enrolments from international students in non-Government VET has declined sharply to reach a level in 2019 of 5.0 per cent. Government VET recovered slightly from its drop in 2013/2014 between 2014 and 2016, then declined sharply to a level in 2019 of 13.0 per cent. Overall, WA's share of national enrolments from international students in VET has declined to a level in 2019 (5.4 per cent) that is below WA's share in 2005 (6.7 per cent).

FIGURE 1.5 WESTERN AUSTRALIA SHARE OF INTERNATIONAL STUDENT ENROLMENTS FOR GOVERNMENT AND NON-GOVERNMENT VET IN AUSTRALIA, 2005-2019



SOURCE: DEPARTMENT OF EDUCATION, SKILLS AND EMPLOYMENT

An Australia education is a fast-track to becoming influential members of the community on a student's return to their home country or wherever they live their lives. Australia must be at the cutting edge of new knowledge, essential in a fast-evolving world. Former international students bring those links to allow us to be part of leading international networks. As examples, those who enter the diplomatic, commercial and academic worlds have an advantage when forming international alliances and partnerships: there is a common understanding and greater confidence of a good outcome.

An immediate and as well as long term impact is that many international students undertake vital research here, often helping to form new or advancing established collaborations with leading overseas research teams. These links often continue to blossom long after the students' study periods, with exchange visits and access to international funding agencies from which Australia would otherwise be excluded.

- Professor Lyn Beazley AO FAA FTSE, Former Chief Scientist and Western Australian of the Year

1.2.3 Schools, ELICOS and Non-award

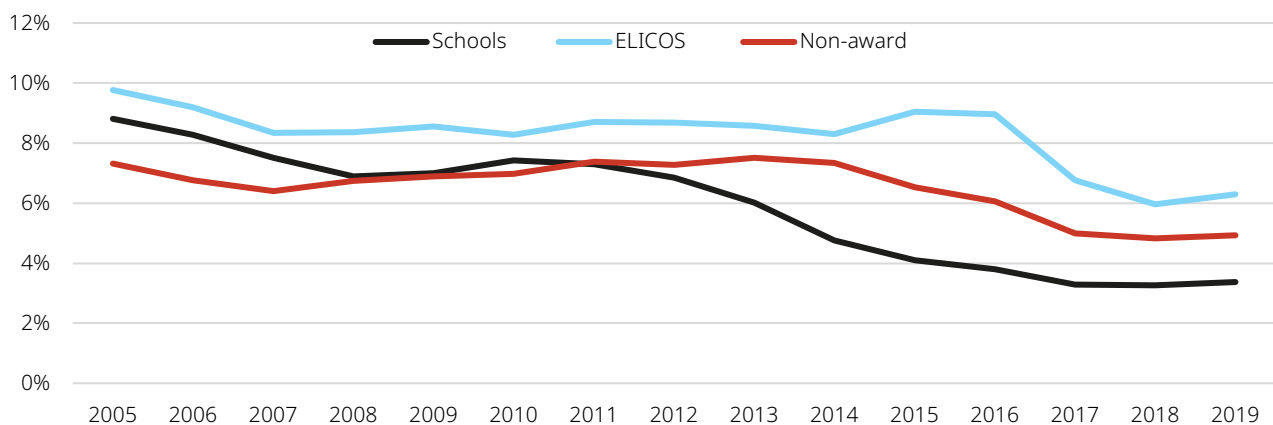
In 2019, there were **864 international student enrolments in Schools in Western Australia**, equating to 3.4 per cent of the total international student enrolments for Schools in Australia. WA's share of the national enrolments from international students in Schools has been in steady decline since 2005 when WA accounted for 8.8 per cent of the national total (2,210 international students).

In 2019, there were **9,868 international student enrolments in ELICOS⁴ in Western Australia**, equating to 6.3 per cent of the total international student enrolments for ELICOS in Australia. WA's share of the national enrolments from international students for ELICOS remained within a tight range of 8-10 per cent in the period between 2005 and 2016. However, in the last three years, WA's share of the national total has declined and in 2019 was sitting at just over 6 per cent.

In 2019, there were **2,380 international student enrolments in Non-award courses⁵ in Western Australia, equating to 4.9 per cent of the total international student enrolments for Non-award courses in Australia**. WA's share of the national enrolments from international students for Non-award courses remained within a tight range of 6-8 per cent in the period between 2005 and 2016. However, in the last three years, WA's share of the national total has declined and in 2019 was sitting at just under 5 per cent.

Figure 1.6 presents Western Australia's share of international student enrolments for Schools, ELICOS and Non-award in Australia over the period from 2005 to 2019.

FIGURE 1.6 WESTERN AUSTRALIA SHARE OF INTERNATIONAL STUDENT ENROLMENTS FOR SCHOOLS, ELICOS AND NON-AWARD IN AUSTRALIA, 2005-2019



SOURCE: DEPARTMENT OF EDUCATION, SKILLS AND EMPLOYMENT

⁴ ELICOS courses help to support students who require English language training before commencing formal studies in Australia.

⁵ Non-award courses do not result in an award (or qualification) that is recognised under the Australian Qualifications Framework and generally have a duration of less than one year.

Having my son study in a school with international students, to me, means that he can gain the advantages of learning the value of empathy and understanding for different cultures. Something that I feel a lot of teenage boys can struggle with these days. As we move into a new and dynamic world, it is very likely that global mobility and diversity will be an increasing part of everyday life. I want to make sure that I have done all I can to prepare my child for this and ensure he is able to actively participate as a 21st century global citizen. With him learning beside international students in the classroom and making friends with other students from all corners of the globe, he gains the awareness and understanding needed that will see him better skilled to successfully navigate his pathway through life.

- Parent of a Year 11 student at St Mark's Anglican Community School

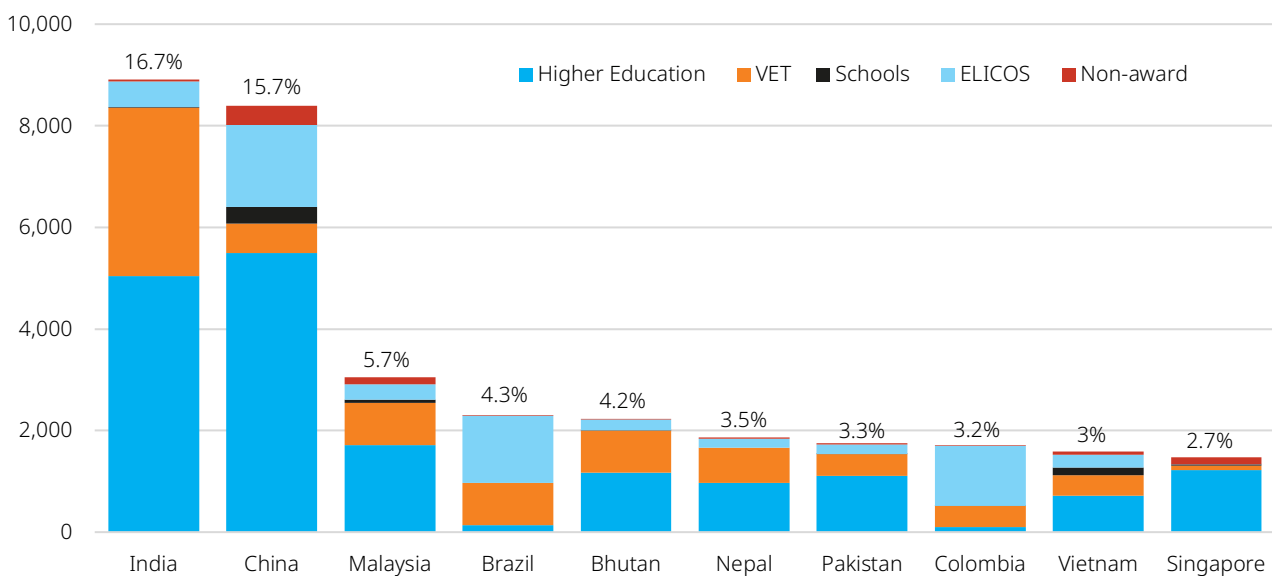
1.3 Enrolments by source market

The scope of source markets for international students in Western Australia is uniquely diverse. In this section, it is highlighted how this diversity has developed in conjunction with the broader growth of the international education sector, and the flow-on effects for the demand for the different education sub-sectors in Western Australia.

Figure 1.7 presents the top ten source markets for international students in Western Australia and the breakdown of enrolments by education sub-sector. The **two largest source markets for international students are India and China**, which account for 16.7 per cent and 15.7 per cent of total international student enrolments respectively. India and China have a similar number of students enrolled in higher education, however the breakdown of the remaining enrolments differ, with India having a higher proportion in VET courses and China with a higher proportion enrolled in ELICOS.

Malaysia (5.7 per cent), Brazil (4.3 per cent) and Bhutan (4.2 per cent) are the next three largest source markets for international students. A significant share of international students from Brazil are enrolled in either ELICOS or VET courses, with smaller numbers enrolled in higher education. This compares against countries such as Malaysia, Pakistan, and Singapore, where the greatest numbers of international students are typically enrolled in higher education.

FIGURE 1.7 TOP TEN SOURCE MARKETS IN WESTERN AUSTRALIA (2019)



SOURCE: DEPARTMENT OF EDUCATION, SKILLS AND EMPLOYMENT

In today's world we need to find ways for greater understanding of different cultures, traditions and languages and our international students provide us this opportunity. International students also bring different perspectives, points of view and approaches that enrich the research and learning environment for their local student counterparts, which ultimately enhances productivity, stimulates innovation and supports skills and preparedness for a changing global workforce. I also see first-hand the engaged and active "citizenship" by international students within our local communities; be it engaging in part-time work and giving back through volunteering. Their contribution is enormous and goes a long way in helping our communities to be more cohesive, more resilient and more inclusive.

- Morgan Lewis, Chief Executive Officer, Auspire

Across all source markets, Western Australia's share of the national total is highest for Bhutan (56.4 per cent of all enrolments, for a total of 2,222 enrolments) Singapore (17.6 per cent of national enrolments, for a total of 1,468 enrolments), and Malaysia (9.9 per cent of national enrolments, for a total of 3,051 enrolments (**Table 1.1**). While India and China are Western Australia's largest source markets for international students, their share of the national total is low compared to other source markets (at 6.2 per cent and 3.2 per cent respectively).

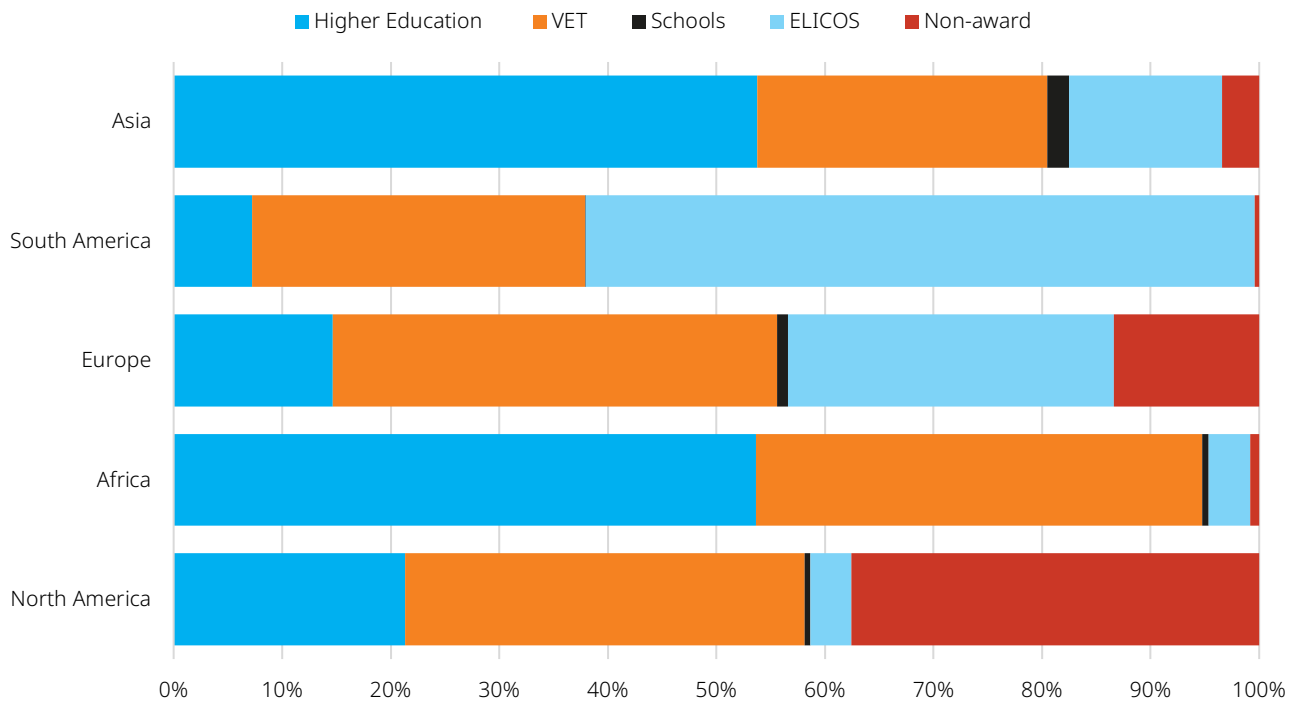
TABLE 1.1 TOP TEN SOURCE MARKETS IN WESTERN AUSTRALIA COMPARED TO NATIONAL ENROLMENTS (2019)

Country	Western Australia			Australia	
	Enrolments (Rank)	Share of Total WA Enrolments	Share of Total AUS Enrolments	Enrolments (Rank)	Share of Total AUS Enrolments
India	8,904 (1)	16.7%	6.2%	143,691 (2)	15%
China	8,394 (2)	15.7%	3.2%	260,819 (1)	27.3%
Malaysia	3,051 (3)	5.7%	9.9%	30,726 (7)	3.2%
Brazil	2,310 (4)	4.3%	5.7%	40,874 (4)	4.3%
Bhutan	2,222 (5)	4.2%	56.4%	3,938 (30)	0.4%
Nepal	1,866 (6)	3.5%	2.7%	69,259 (3)	7.2%
Pakistan	1,746 (7)	3.3%	9.1%	19,198 (12)	2%
Colombia	1,708 (8)	3.2%	5.4%	31,773 (6)	3.3%
Vietnam	1,587 (9)	3%	5%	31,850 (5)	3.3%
Singapore	1,468 (10)	2.7%	17.6%	8,323 (20)	0.9%

SOURCE: DEPARTMENT OF EDUCATION, SKILLS AND EMPLOYMENT

Some clear trends emerge in relation to international student demand across the five education sub sectors when the source markets are aggregated at a regional level. As presented in **Figure 1.8**, approximately 54 per cent of international students from Asian countries are enrolled in higher education. By contrast, only 7 per cent of international students from South American countries and 15 per cent from European countries are enrolled in higher education. The top education sub-sector for South American students is ELICOS (62 per cent) and for European students it is VET courses (41 per cent). Approximately 38 per cent of North American students are enrolled in Non-award courses.

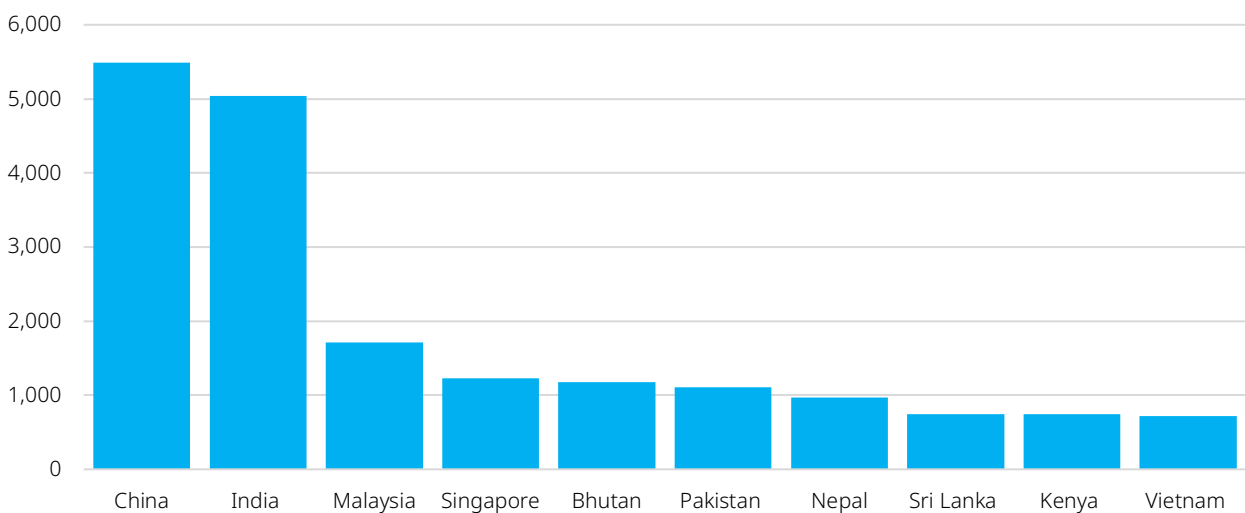
FIGURE 1.8 REGIONAL INTERNATIONAL STUDENT ENROLMENT BY EDUCATION SUB-SECTOR



SOURCE: DEPARTMENT OF EDUCATION, SKILLS AND EMPLOYMENT

Figure 1.9 presents the top ten source markets for higher education in Western Australia. The six source markets with greater than 1,000 students enrolled in higher education are China, India, Malaysia, Singapore, Bhutan and Pakistan.

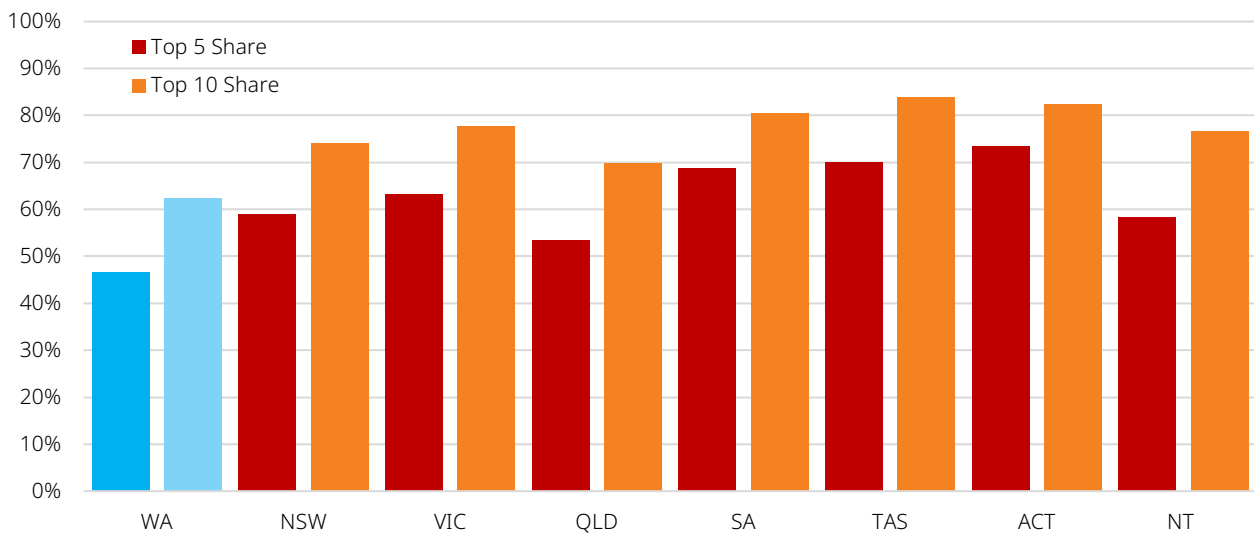
FIGURE 1.9 TOP TEN SOURCE MARKETS FOR HIGHER EDUCATION (2019)



SOURCE: DEPARTMENT OF EDUCATION, SKILLS AND EMPLOYMENT

In 2019, there were international students from a total 152 countries in Western Australia, yet only two countries (India and China) had a share of the total international student enrolments in Western Australia greater than 10 per cent (**Figure 1.7**). The top five source markets for international students in Western Australia capture 46.6 per cent of total international student enrolments, while the top ten source markets capture 62.3 per cent (**Figure 1.10**). This reflects the diversity of source markets in Western Australia compared to other Australian jurisdictions such as Victoria, the second largest state in Australia for total international student enrolments, where the top source markets account for 63.2 per cent of total enrolments and the top ten source markets account for 77.8 per cent of the total in Victoria.

FIGURE 1.10 DIVERSITY OF SOURCE MARKETS – JURISDICTION COMPARISON



SOURCE: DEPARTMENT OF EDUCATION, SKILLS AND EMPLOYMENT

International students are ambassadors for our state within Australia and internationally, not only as examples of the excellence of our educational institutions but also because they can provide authentic testimonials about the quality of the state as a destination in which to live, study and visit.

The international student alumni that have studied in WA and now reside overseas, either in their home country or elsewhere, is an invaluable professional network that provides intelligence and connections into international business, industry and academia.

- Gareth Martin, Chief Executive Officer, Business Events Perth



ECONOMIC CONTRIBUTION OF INTERNATIONAL EDUCATION

The results presented in this section articulate the economic contribution that spending by international students made to Western Australia in 2019, using ACIL Allen's Input-Output modelling framework. The economic contribution has been measured in terms of the direct and indirect contribution to value added (Gross State Product) and employment (FTE basis). The results of ACIL Allen's analysis and modelling are presented in terms of the overall results, with results also presented by education sub-sector, by source market, and by industry.



2.1 Overall Results

This section highlights the important economic contribution that international education makes to the WA economy, both directly to the education and training sector, and also more broadly across all sectors of the WA economy.

It is estimated that international students directly contributed \$549 million to the WA economy in 2019, with a further \$1,556 million boost to the economy indirectly as a result of the international student expenditure. When the contribution of visiting friends and relatives is also included, **is it estimated that the 53,404 international students studying in Western Australia contributed \$2.1 billion to the WA economy in 2019.**

Based on these results, it is estimated that for every international student enrolled in WA, \$39,417 is contributed to the State's economy.

The economic multiplier of international student expenditure is estimated to be 3.84, meaning every dollar of spending by an international student generates \$3.84 in value added across the WA economy. **The high economic multiplier highlights the significant stimulus that international student expenditure generates across the WA economy.**

It is estimated that the expenditure by international students in 2019 directly supported the employment of 4,144 FTE jobs, and a further 7,790 FTE jobs were indirectly created as a result of this spending, with an implied employment multiplier of 2.88.

Overall, **international student expenditure supported 11,935 direct and indirect FTE jobs across Western Australia in 2019.** To put this into comparison, the total number of FTE jobs supported by international student expenditure, equated to around one fifth of all FTE jobs in the education and training sector and was more than the total number FTE jobs in the Arts and Recreational Services sector in WA at the end of 2019. Based on these results, it is estimated that for every 5 international students enrolled in WA, an additional FTE job is created in the State.

2.2 Economic Contribution by Education Sub-sector

In addition to the overall results presented in the previous section, ACIL Allen has estimated the economic contribution of international students in Western Australia by education sub-sector (Higher education, VET, Schools, ELICOS and Non-award). When drawing inferences and assessing the implications of the results presented below, it is important to recognise that the duration and associated fee structures for each of the education sub-sectors differ substantially. For instance, an international student enrolled in higher education is likely to have the longest duration of time spent in WA over the course of a year and the fees associated with a higher education course are significantly higher compared to the other education sub-sectors.

Not only does the City of Perth value highly the significant contribution international students make to the economic health of Perth, we also recognise the vibrant role the presence of international students play in bringing Perth's cultural and entertainment precincts alive. This is why the City continues to invest in supporting the development and growth of the education sector within the city.

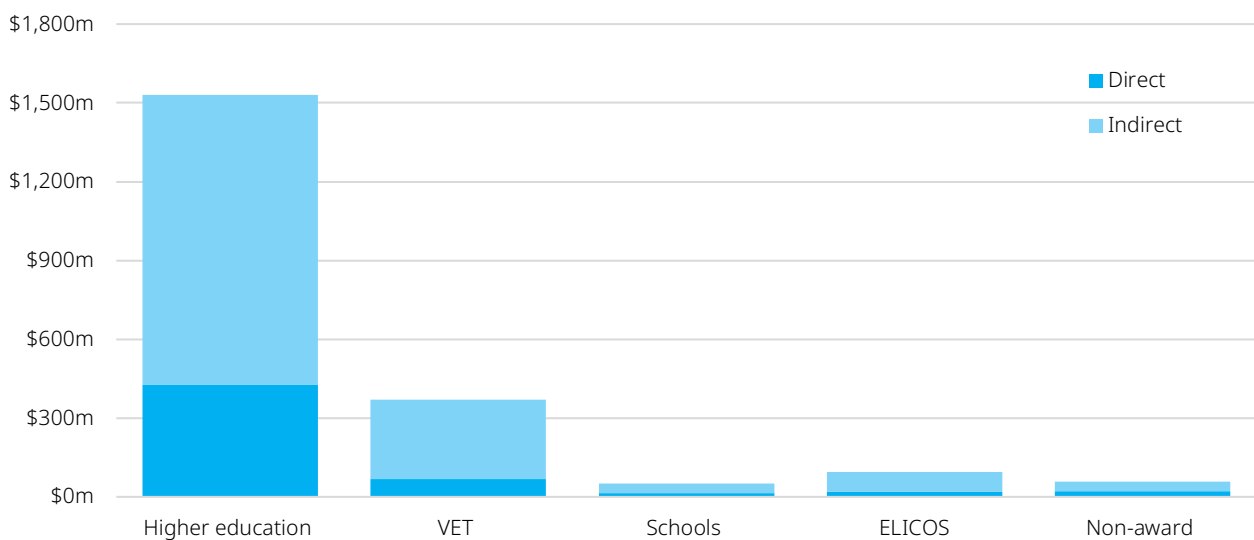
- Daniel High, Alliance Manager of Economic Development, City of Perth

2.2.1 Gross State Product

Figure 2.2 presents the value added contribution to GSP from international students by education sub-sector. The higher education sector made up the largest share of the overall contribution, reflecting the larger share of international students in higher education, the higher fees associated with higher education and the longer duration of courses relative to other education sub sectors.

It is estimated that expenditure by international students in higher education contributed \$1.53 billion to WA's economy, equating to almost three-quarters of the total impact. The VET sector was the next largest, contributing \$371 million to GSP, followed by ELICOS (\$93.9 million), Non-award (\$58.2 million) and Schools (\$51.5 million).

FIGURE 2.2 VALUE ADDED CONTRIBUTION FROM INTERNATIONAL STUDENTS BY EDUCATION SUB-SECTOR



SOURCE: ACIL ALLEN CONSULTING

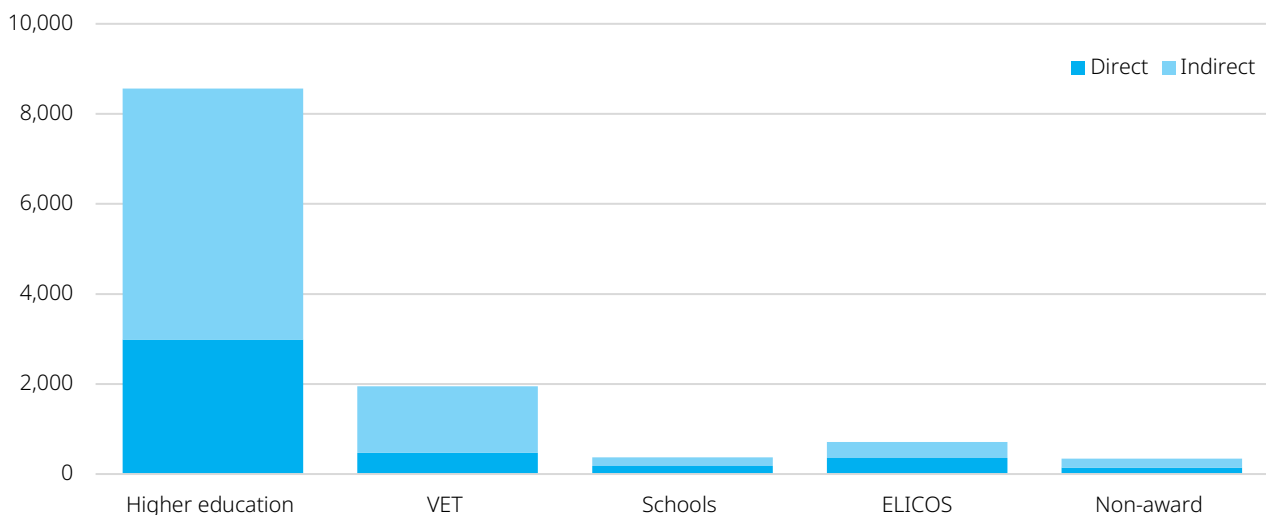
Based on the numbers of students enrolled in each education sub-sector, it is estimated that in 2019, higher education contributed the greatest on a per enrolment basis, with each international student contributing \$61,508 to WA's economy. Across other education sub-sectors, it is estimated that every enrolment in VET contributed \$24,063 to WA's economy, for schools every enrolment generated \$59,646 to WA's economy, while for ELICOS \$9,513 per enrolment and non award it was \$24,463 per enrolment.

2.2.2 Employment

Figure 2.3 presents the employment supported by international students by education sub-sector. Higher education again provided the largest boost to jobs of all education sub sectors, reflecting the larger share of international students in higher education, the higher fees associated with higher education and the longer duration of courses relative to other education sub sectors.

Higher education supported 8,562 direct and indirect FTE jobs across WA, equating to 72 per cent of the total employment supported by international students. The VET sector was the second largest contributor to the overall employment impacts (1,948 FTE jobs), followed by ELICOS (715 FTE jobs), Schools (368 FTE jobs) and Non-award (341 FTE jobs).

FIGURE 2.3 EMPLOYMENT CONTRIBUTION FROM INTERNATIONAL STUDENTS BY EDUCATION SUB-SECTOR



SOURCE: ACIL ALLEN CONSULTING

The **economic contribution study will assist StudyPerth in progressing its Recovery and Renewal Plan by explaining the scale and the channels through which the international education sector in Western Australia helps to grow the economy and support job opportunities.**

Based on the numbers of students enrolled in each education sub-sector in Western Australia, it is estimated that in 2019 **one FTE job was supported in the WA economy for:**

- every 3 students enrolled in higher education;
- every 8 students enrolled in VET;
- every 2 students enrolled in Schools;
- every 14 students enrolled in ELICOS; and
- every 7 students enrolled in the non-award sub sector.

Across all sub-sectors, it is estimated that on average every five international students studying in Western Australia supported one FTE job.

WA is the powerhouse of our nation's trade. Providing overseas students access to higher education makes a significant contribution to our economy and provides the foundation for greater trade and cultural exchange for generations to come.

The jobs created through international education extend beyond our universities and VET sector to sectors such as tourism, retail, hospitality and real estate.

- Chris Rodwell, Chief Executive Officer, Chamber of Commerce and Industry of Western Australia

2.3 Economic Contribution by Source Market

This report estimated the economic contribution of international students in Western Australia by source markets with total enrolments of greater than 1,000 students. There are 17 source markets that meet the criterion for this threshold, with the remaining source markets included under the 'All Others' category. When drawing inferences and assessing the implications of the results presented below, it is important to recognise differences across source markets are mainly driven by variations in education sub-sector compositions (eg. a low proportion enrolled in higher education) and variations in relative spending patterns which have been adjusted for through the allocation of expenditure profiles based on the relative wealth of the source market (see **Table D.2**).

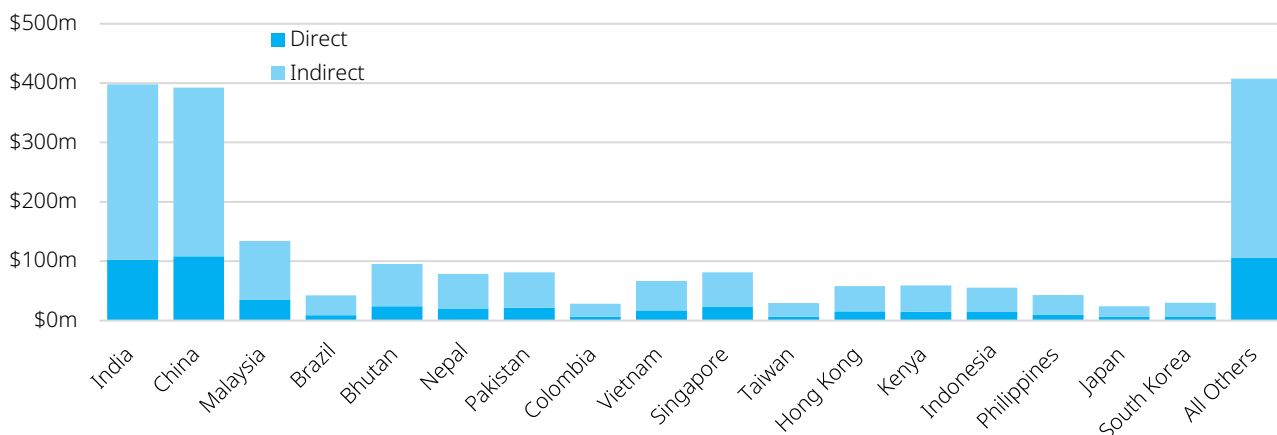
2.3.1 Gross State Product

Figure 2.4 presents the value added contribution to GSP from international students by source markets with total enrolments of greater than 1,000 students. **It is estimated that the top two source markets in India and China accounted for 38 per cent of the total value added contribution to GSP from international students in 2019.**

International students from **India, the largest source market, contributed \$398 million to the WA economy in 2019, closely followed by international students from China, which collectively contributed \$393 million to GSP.**

While India and China were the largest single markets for international students, one of the defining features of international education in Western Australia is the breadth of source markets, with a further 15 source markets with student numbers of over 1,000. Of these, the largest source markets in 2019 were Malaysia (\$134 million), Bhutan (\$95 million) and Singapore (\$81 million).

FIGURE 2.4 VALUE ADDED CONTRIBUTION FROM INTERNATIONAL STUDENTS BY SOURCE MARKET



SOURCE: ACIL ALLEN CONSULTING

Based on the numbers of students from each source market, it is estimated that in 2019, the highest value source market on a per student basis was Singapore, with each student contributing on average \$55,365 to the WA economy, followed by China (\$46,768 per student), Pakistan (\$46,427), Indonesia (\$46,008), and Kenya (\$45,281). Across all source countries, the average contribution of each international student to the WA economy in 2019 was \$39,417.

2.3.2 Employment

Figure 2.5 presents the employment supported by international students by source markets with total enrolments of greater than 1,000 students. It is estimated that the **top two source markets in India and China accounted for 38 per cent of the total number of jobs supported by international students in 2019.**

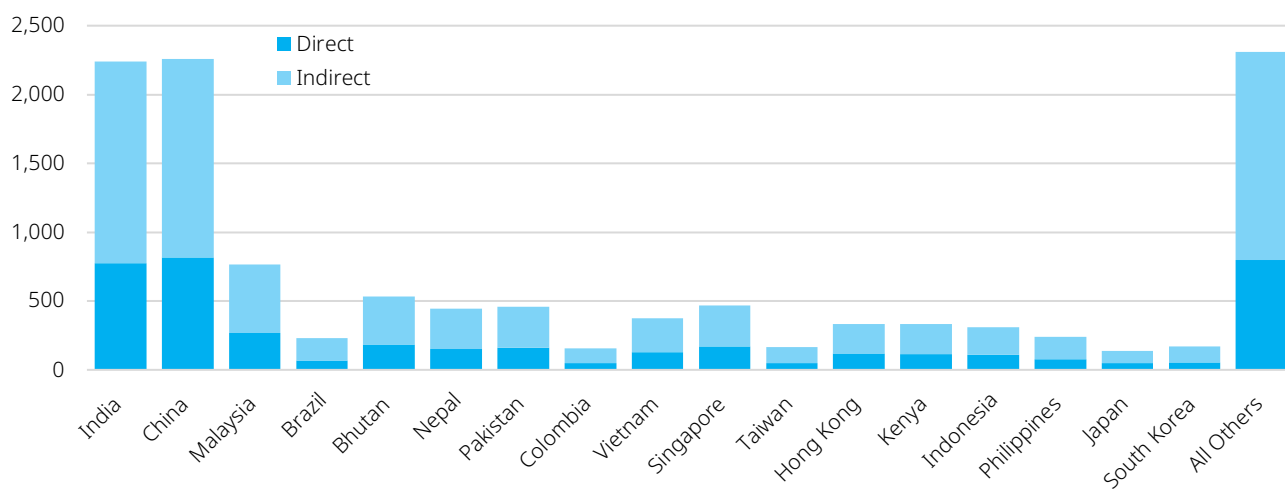
International students from **China, the largest source market, supported 2,260 direct and indirect FTE jobs in WA, followed closely by Indian students which supported 2,241 direct and indirect FTE jobs.** As noted above, given the breadth of the countries of origin of international students studying in WA, there are thousands of additional jobs supported by international students from smaller markets. Of those, the largest number of jobs supported in WA were from students from Malaysia (767 FTE jobs), Bhutan (535 FTE jobs) and Singapore (470 FTE jobs).

Based on the numbers of students from each source market in Western Australia, it is estimated that in 2019 **one FTE job was supported in the WA economy for:**

- every 3 students from Singapore;
- every 4 students from China;
- every 4 students from Pakistan;
- every 4 students from Indonesia; and
- every 4 students from India.

Across all source countries, one FTE job was supported for every five international students studying in Western Australia in 2019.

FIGURE 2.5 EMPLOYMENT CONTRIBUTION FROM INTERNATIONAL STUDENTS BY SOURCE MARKET



SOURCE: ACIL ALLEN CONSULTING

International Students are an important resource for the hospitality sector offering a range of language skills, diverse cultural understanding and the ability to be flexible with the demands of different customers from different countries.

International Students are also great consumers in our economy both individually in their enjoyment of food, beverage and hospitality as well as in attracting visiting friends and relatives to Western Australia.

- Bradley Woods, Chief Executive Officer, Australian Hotels Association Western Australia

2.4 Economic Contribution by Key Sectors

ACIL Allen has estimated the economic contribution of international students and VFR by sector in order to demonstrate the broader impacts that arise from international students studying in Western Australia.

2.4.1 Gross State Product

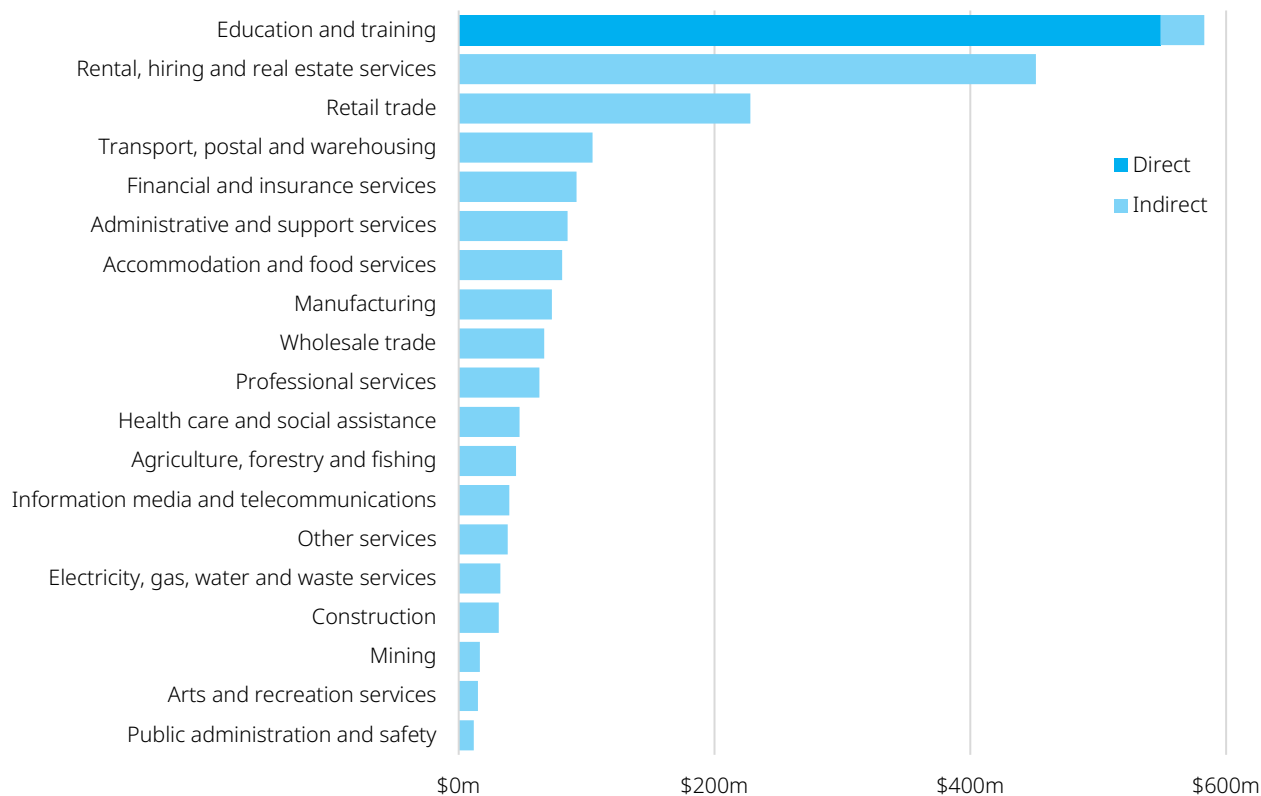
Figure 2.6 presents the value added contribution to GSP from international students by key sectors. The **Education and Training sector of the WA economy was the largest beneficiary of the expenditure by international students, with \$549 million directly contributed to the sector** (primarily in the form of course fees) and a further \$34 million indirectly to the sector. For other sectors of the economy, reflect the indirect benefits arising from the expenditure from international students that is not related to the provision of education.

It is estimated that the contribution to **Rental, hiring and real estate services sector amounted to \$451 million in value added terms in 2019. To put this into perspective, international student expenditure accounted for one in every twelve dollars generated in the Rental, hiring and real estate services sector in 2019.**

Retail trade (\$228 million), Transport, postal and warehousing (\$105 million) and Financial and insurance services (\$92 million) sectors⁶ were also significant beneficiaries from international student expenditure in 2019.

⁶ Expenditure allocated as "Food, drink and accommodation" under the TRA expenditure profile framework has been split by ACIL Allen in the I-O modelling across four categories. The accommodation component of "Accommodation and food services" is hotels, but not renting a home. Renting a home would be categorized under "Rental, hiring and real estate services".

FIGURE 2.6 VALUE ADDED CONTRIBUTION FROM INTERNATIONAL STUDENTS BY KEY SECTORS

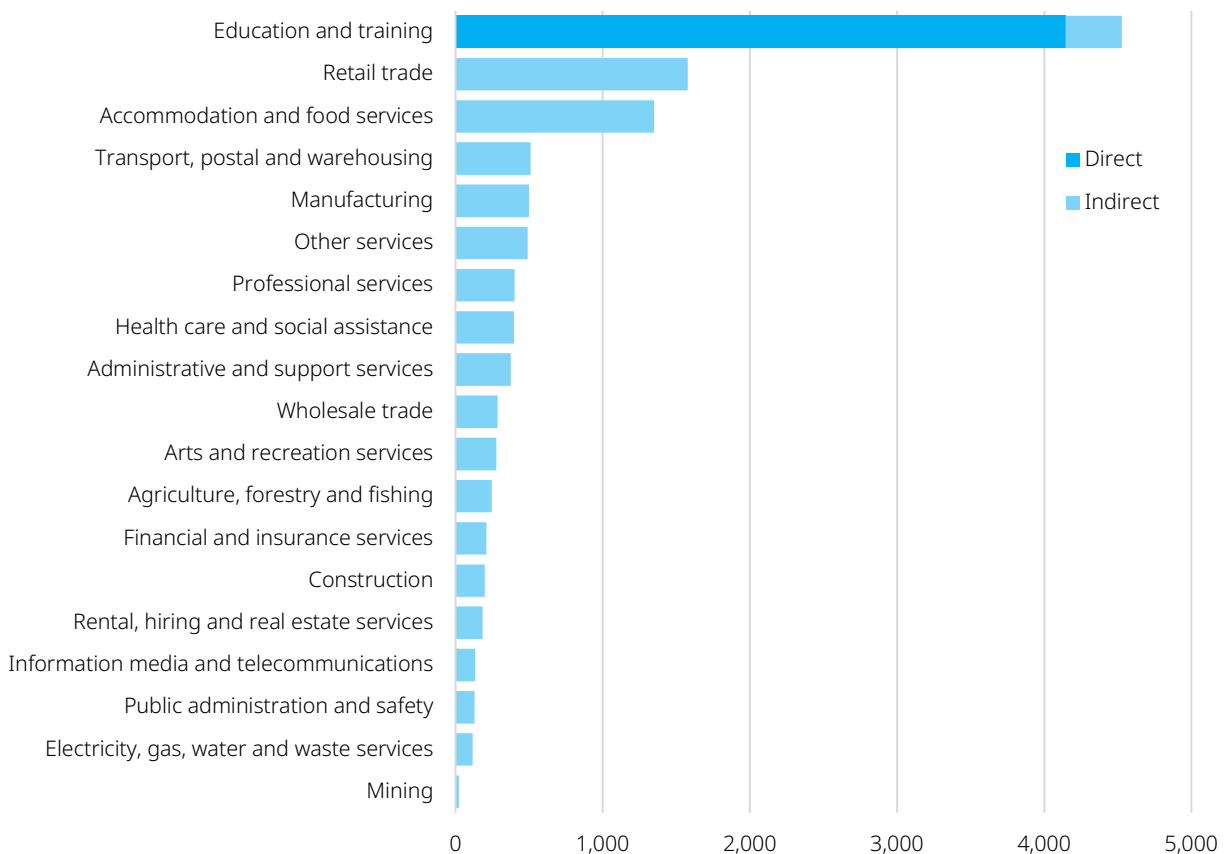


SOURCE: ACIL ALLEN CONSULTING

2.4.2 Employment

Figure 2.7 presents the employment supported by international students by key sectors. It is estimated that international students directly supported 4,144 FTE jobs in the Education and training sector, with a further 384 FTE jobs supported on an indirect basis. On an indirect basis, the industries that generated the largest employment opportunities as a result of the expenditure by international students were Retail Trade (1,577 FTE jobs), followed by Accommodation and food services (1,349 FTE jobs), Transport, postal and warehousing (510 FTE jobs) and Manufacturing (499 FTE jobs).⁷ **These results highlight the important role that international students make in not only growing Western Australia’s education and training sector, but also in supporting job creation more broadly across all sectors of the economy.**

FIGURE 2.7 EMPLOYMENT CONTRIBUTION FROM INTERNATIONAL STUDENTS BY KEY SECTORS



SOURCE: ACIL ALLEN CONSULTING

⁷ “Accommodation and food services” has a high labour to capital ratio, while “Rental, hiring and real estate services” has a high capital to labour ratio.

The contribution of international students is well understood by developers and urban planners, and for the first time this report reveals the actual economic value to WA. Visiting international students who invest in our State are attracted by the lifestyle, safety, amenity and long term capital growth prospects.

Beyond contributing to the thousands of direct and indirect jobs in the property sector, international students and temporary migrants add to the vibrancy and viability of the places they inhabit, filling cafes, restaurants, shops and gyms.

- Sandra Brewer, Executive Director, Property Council of Western Australia

2.4.3 Economic Contribution by Key Sectors for VFR Impacts

In relation to the economic contribution of visiting friends and relatives of international students in WA in 2019, the impact by sector follows a similar profile to international students' non-education related expenditure.

Figure 2.8 presents the value added and employment contribution from VFR by key sectors. From a value added perspective, it is estimated that Rental, hiring and real estate services were the largest beneficiary to the tune of \$5.8 million, followed by Retail trade (\$3.9 million), Transport, postal and warehousing (\$1.37 million), Accommodation and food services (\$1.03 million) and Manufacturing (\$0.95 million).

From an employment perspective, the impacts were slightly different, reflecting the different levels of labour intensity relating to each sector. It is estimated that the Retail trade sector would have the largest number of jobs supported by the expenditure associated with VFR (24 FTE jobs), followed by Accommodation and food services (17 FTE jobs), and Transport, postal and warehousing (7 FTE jobs).

FIGURE 2.8 ECONOMIC CONTRIBUTION FROM VFR BY KEY SECTORS



SOURCE: ACIL ALLEN CONSULTING

International students make a significant contribution to the cultural and economic prosperity of our State, particularly when it comes to attracting international tourists. A strong international student market will help attract visiting friends and relatives from overseas. International students are also important to resourcing the tourism workforce.

- Evan Hall, Chief Executive Officer, Tourism Council of Western Australia

APPENDICES



A. Glossary Of Terms And Abbreviations

TABLE A.1 SUMMARY OF TERMS USED

Term used	Meaning
Employment	The number of full-time equivalent jobs created as a result of expenditure in the economy, which includes direct and indirect employment.
Gross product or real economic output	Gross product is a measure of the output generated by an economy over a period of time (typically a year). It represents the total dollar value of all finalised goods and services produced and is considered as a measure of the size of the economy. At a national level, it is referred to as Gross Domestic Product (GDP); at the state level, Gross State Product (GSP); while at a regional level, Gross Regional Product (GRP).
Input-Output Tables	Input-Output (I-O) tables capture the direct and indirect effects of expenditure by capturing, for each industry, the industries it purchases inputs from and also the industries it sells its outputs to.

TABLE A.2 SUMMARY OF ACRONYMS

Acronym	Meaning
ABS	Australian Bureau of Statistics
DESE	Department of Education, Skills and Employment
ELICOS	English Language Intensive Courses for Overseas Students
FTE	Full Time Equivalent
GDP	Gross Domestic Product
GSP	Gross State Product
IVS	International Visitor Survey
TRA	Tourism Research Australia
VET	Vocational education and training
VFR	Visiting friends and relatives

B. Modelling Methodology And Assumptions

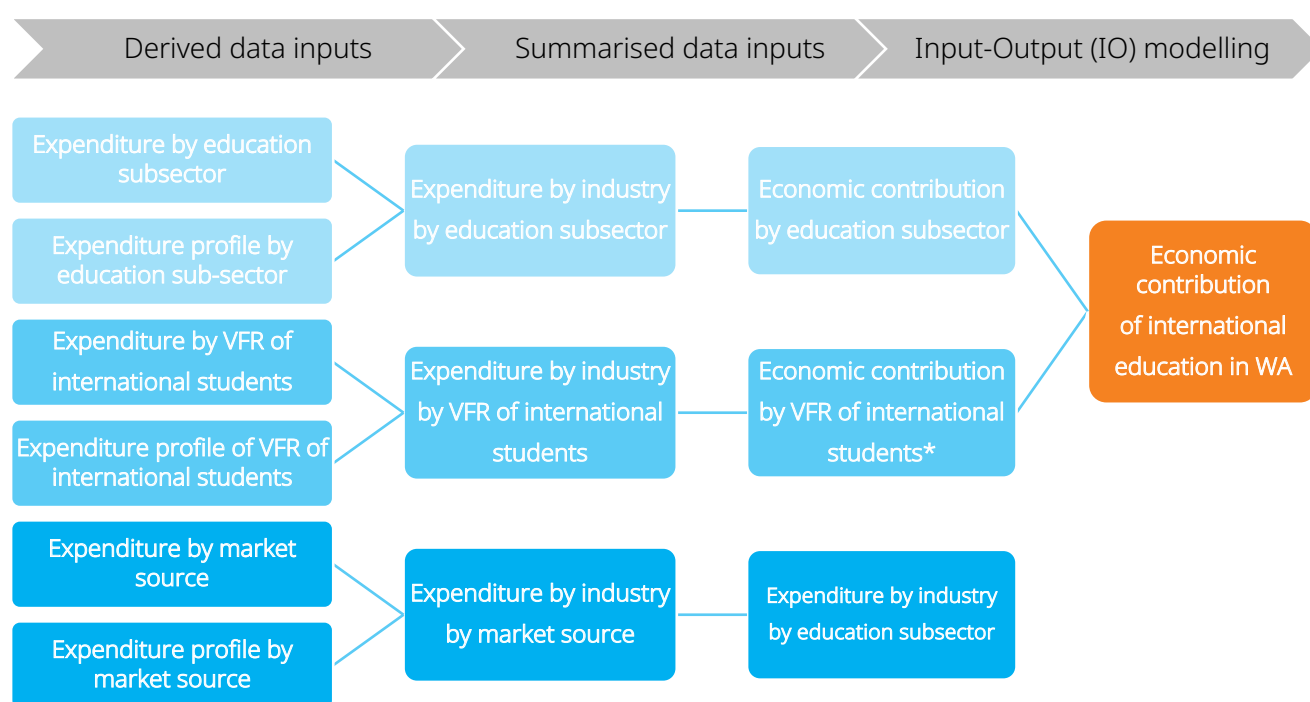
This section of the report provides an overview of the modelling methodology, derived data inputs and assumptions that have been used by ACIL Allen to estimate the economic contribution of international education in Western Australia.

B.1 Modelling Methodology And Assumptions

The calculation of a set of derived data inputs was a critical step prior to the commencement of the economic modelling, as most of the required data inputs are not directly available from the primary data sources of the ABS, TRA and DESE. **Figure B.1** demonstrates the interrelated data inputs that capture different aspects of the international education sector and the transformation of the derived data inputs to summarised data inputs and finally to the Input-Output modelling outputs.

Further information on ACIL Allen’s Input Output (IO) modelling framework is provided in **Appendix C**.

FIGURE B.1 SUMMARY OF ECONOMIC CONTRIBUTION MODELLING



Note: The economic contribution by VFR of international students is presented as an aggregate figure and not by country of origin due to data constraints

SOURCE: ACIL ALLEN CONSULTING

B.2 Assumptions and Data Sources

This section of the report provides an overview of the modelling methodology, derived data inputs and assumptions that have been used by ACIL Allen to estimate the economic contribution of international education in Western Australia.

B.1 Modelling Methodology And Assumptions

This study focuses on onshore student enrolments in higher education, vocational education and training (VET), schools, English Language Intensive Courses for Overseas Students (ELICOS) and non-award courses for students studying on student visas only. The contribution of revenue from other forms of international education (such education consultancy services and other education services, and non-student visa markets) has not been considered.

Export revenue for international education services is reported by the ABS for states and territories. However, the ABS data is not broken down into the five education sub-sectors of higher education, VET, schools, ELICOS and non-award at the state and territory level. In order to calculate the revenue for each education sub-sector in Western Australia, ACIL Allen used international trade in services data from the ABS, which breaks down the total export revenue into fees and goods and services for the education sub-sectors at the national level, and the DETE enrolment figures by education sub-sector for WA. For example, given that higher education enrolments in WA are 5.6 per cent of the national total, it is assumed that the revenue from fees for higher education is also equal to 5.6 per cent of the national total. Fee revenue for other education sub-sectors is similarly allocated.

This step provided ACIL Allen with the average expenditure per enrolment for fees and goods and services for the five education sub-sectors (**Table B.1**). Applying these figures and DETE enrolment data for source markets for international students in WA, ACIL Allen calculated the expenditure for fees and goods and services for a selected set of the largest source markets.

TABLE B.1 INTERNATIONAL STUDENT EXPENDITURE BY EDUCATION SUB-SECTOR, 2018-19

	Higher education	VET	Schools	ELICOS	Non-award	Total
Fees (\$m)	661.4	104.7	18.6	36.3	32	853.1
Living expenses (\$m)	764.4	270.8	29.2	62	18.5	1144.9
Total expenditure (\$m)	1425.9	375.6	47.9	98.2	50.5	1998
Average expenditure per enrolment	\$57,296	\$24,377	\$55,385	\$9,956	\$21,213	\$37,413

SOURCE: ACIL ALLEN CONSULTING AND AUSTRALIAN BUREAU OF STATISTICS

TABLE B.2 DERIVED DATA INPUTS

Derived data inputs	Data Sources (Table 3.3)	Relevant assumptions
Expenditure		
International student expenditure by education sub-sector	1, 2, 3	<ul style="list-style-type: none"> - A deflator is used to reconcile the total expenditure across all education sub-sectors with the WA education-related services international trade total in Source 2. The deflator accounts for the price differentials between states. - Ausaid and Defence international student categories in Source 3 have not been included in this study as an education sub-sector. - The average fee for an enrolment in each education sub-sector is the same across Australian states and territories.

International student expenditure by market source	1	<ul style="list-style-type: none"> - ACIL Allen uses the derived average expenditure per enrolment by education sub-sector (split into education fees and living expenses) and the enrolment data from Source 1 to calculate the total expenditure by market sources.
Expenditure by VFR of international students	6	<ul style="list-style-type: none"> - Over a quarter (26%) of students studying in WA were visited by friends and relatives. - One third of these students received more than one visit by friends and relatives. (*Total number of trips = 34.7% of total international student enrolments). ACIL Allen has assumed two visits for international students with more than one visit from VFR. - Average spend per trip of VFR tourists in Western Australia = \$1,229

Expenditure profile

International student expenditure profile by education sub-sector	5	<ul style="list-style-type: none"> - Expenditure allocated to Education fees uses derived expenditure by education sub-sector calculations. - Remaining expenditure after education fees is allocated to 'Living expenses'. - TRA expenditure profile categories of package tour, pre-paid international airfares and conference fees are excluded (assumed also for following two data inputs). - Expenditure profile for living expenses is based on the aggregate expenditure profile for living expenses across all market sources (calculated in the input below). This assumes students in each education sub-sector have the same consumption bundle.
International student expenditure profile by market source	5	<ul style="list-style-type: none"> - Selected countries are those with total international student numbers greater than 1,000 - Higher income Asian countries allocated the TRA expenditure profile for visitors (all categories of travel) to Australia from China (China, Malaysia, Singapore, Taiwan, Hong Kong, Japan, South Korea). - Remaining selected countries allocated the TRA expenditure profile for visitors to Australia from 'Other' (which accounts for all countries other than China, US, UK, New Zealand and Japan). - All other countries (<1,000 international students) allocated the derived expenditure profile of the largest market sources (top 17 countries).
VFR of international students expenditure profile	4	<ul style="list-style-type: none"> - TRA Purpose of Visiting category is 'Visiting Friends and Relatives'. - Share of expenditure allocated to Education fees adjusted to zero. Assume visitors to WA coming to see a friend or relative will not be undertaking any education courses themselves while in the state.

- Assumed that all VFR have the same average trip expenditure and expenditure profile, regardless of country of origin. Data has not been sourced that provides evidence of students from particular countries being more likely to have VFR coming to WA. This assumption has been applied in previous studies.

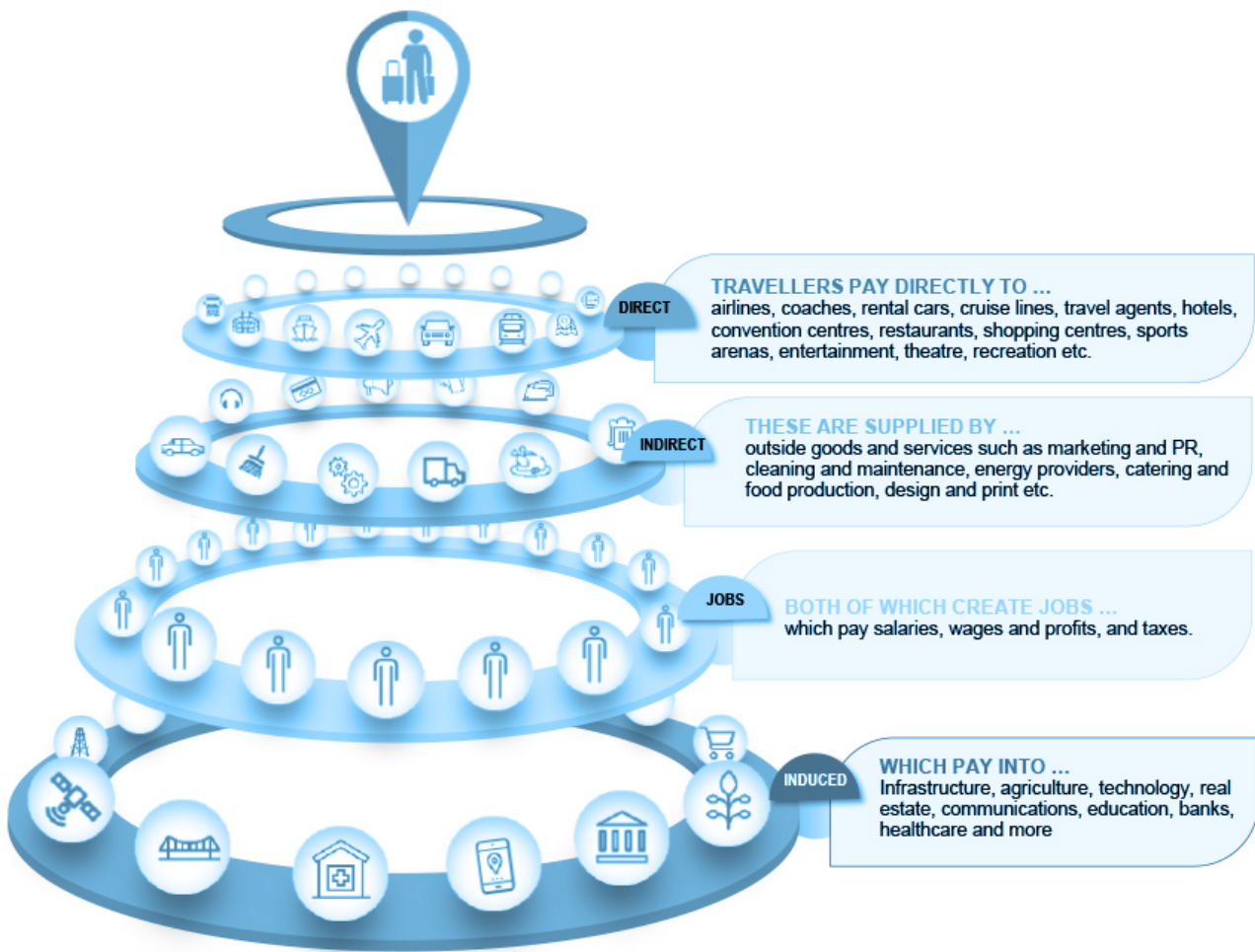
TABLE B.3 DATA SOURCES

No.	Data category	Source
1	2019 WA international student enrolment by education sub-sector and market source	Department of Education, Skills and Employment – <i>International Student Data</i>
2	2018-19 International Trade in Services, Credits, State by Financial Year – WA	ABS
3	2018-19 International Trade in Services, Credits, Education Related Travel, by Educational Sector, by Type of Expenditure by Financial Year	ABS
4	2019 Expenditure Profile for International Visitors by Purpose of Visiting Australia	Tourism Research Australia – <i>International Visitor Survey</i>
5	2019 Expenditure Profile for International Visitors by Country of Origin	Tourism Research Australia – <i>International Visitor Survey</i>
6	2019 Proportion of international students with VFR in WA and average VFR trip expenditure	StudyPerth (via Tourism Research Australia – <i>International Visitor Survey</i>)

C. Input-Output Modelling

I-O models capture the direct and indirect effects of expenditure by capturing, for each industry, the industries it purchases inputs from and also the industries it sells its outputs to. For example, the I-O model for Western Australia captures purchases from and sales to industries located in Western Australia, as well as imports from outside of Western Australia.

FIGURE C.1 "TRACE THROUGH" OF TOURISM EXPENDITURE IN AN INPUT-OUTPUT MODEL



SOURCE: ACIL ALLEN CONSULTING

The figure above depicts how expenditure from a visitor traced through a (very simple) economy:

1. A visitor **directly** spends money on tourism related products, such as airlines, cruise ships, food, beverages and accommodation.
2. These tourism products are then **indirectly** supplied in part by other companies, these companies provide goods and services that go into final product that visitors purchase. For example, a food manufacturing business as well as a catering business could provide inputs into food and beverages that a visitor purchases.
3. This direct and indirect demand for goods and services requires labour, and the flow of money from visitor to business and business to business allows for wages and salaries to be paid to employees, profits to be earned and taxes to be paid to government.
4. In turn, results in **flow-on** or induced economic activity.

Results of I-O Modelling

I-O tables are able to produce results for a range of key economic indicators. For example:

- Economic Output (as measured by Gross Product);
- Industry Gross Value Added;
- Exports;
- Incomes (as measured by Wages and Salaries earned); and
- Employment (on a Full Time Equivalent (FTE) basis).

ACIL Allen's I-O modelling framework allows for results to be produced at a national, state, regional, Statistical Area Level 2 and Local Government Area level.

D. Summary Tables

ACIL Allen has presented in the summary tables below the full set of I-O economic contribution modelling results by education sub-sector, by source market and by key sectors of the economy.

D.1 Economic Contribution by Education Sub-sector

TABLE D.1 ECONOMIC CONTRIBUTION FROM INTERNATIONAL STUDENTS BY EDUCATION SUB-SECTOR

Education sub-sector	Direct contribution	Indirect contribution	Total	Contribution per enrolment
Value added				
Higher education	\$426.6 m	\$1104.1 m	\$1530.7 m	\$61,508
VET	\$67.5 m	\$303.2 m	\$370.7 m	\$24,063
Schools	\$14.0 m	\$37.6 m	\$51.5 m	\$59,646
ELICOS	\$20.0 m	\$73.9 m	\$93.9 m	\$9,513
Non-award	\$20.7 m	\$37.6 m	\$58.2 m	\$24,463
Total	\$548.7 m	\$1556.4 m	\$2105.0 m	\$39,417
Employment (FTE)				
Higher education	2989.4	5572.1	8561.5	0.34
VET	473.2	1475.2	1948.4	0.13
Schools	182.0	186.4	368.5	0.43
ELICOS	354.8	360.4	715.2	0.07
Non-award	144.8	196.4	341.1	0.14
Total	4144.2	7790.5	11934.7	0.22

D.2 Economic Contribution by Source Market

TABLE D.2 ECONOMIC CONTRIBUTION FROM INTERNATIONAL STUDENTS BY SOURCE MARKET

Source Market	Direct contribution	Indirect contribution	Total	Contribution per enrolment
Value added				
India	\$102.4 m	\$295.4 m	\$397.8 m	\$44,678
China	\$108.0 m	\$284.6 m	\$392.6 m	\$46,768
Malaysia	\$35.6 m	\$98.4 m	\$134.0 m	\$43,933
Brazil	\$9.2 m	\$33.3 m	\$42.5 m	\$18,408
Bhutan	\$24.3 m	\$70.7 m	\$95.0 m	\$42,766
Nepal	\$20.2 m	\$58.6 m	\$78.7 m	\$42,193
Pakistan	\$21.4 m	\$59.6 m	\$81.1 m	\$46,427
Colombia	\$6.3 m	\$22.0 m	\$28.3 m	\$16,561
Vietnam	\$17.2 m	\$49.5 m	\$66.7 m	\$42,050
Singapore	\$22.8 m	\$58.5 m	\$81.3 m	\$55,365
Taiwan	\$6.4 m	\$23.0 m	\$29.5 m	\$20,767
Hong Kong	\$15.5 m	\$42.7 m	\$58.3 m	\$41,950
Kenya	\$15.1 m	\$43.8 m	\$58.9 m	\$45,281
Indonesia	\$14.5 m	\$40.6 m	\$55.1 m	\$46,008
Philippines	\$10.2 m	\$32.8 m	\$43.0 m	\$35,928
Japan	\$6.5 m	\$17.6 m	\$24.2 m	\$20,541
South Korea	\$7.0 m	\$23.2 m	\$30.2 m	\$26,403
All Others	\$105.9 m	\$301.9 m	\$407.8 m	\$36,018
Total	\$548.7 m	\$1556.4 m	\$2105.0 m	\$39,417
Employment (FTE)				
India	773.4	1467.3	2240.7	0.25
China	815.6	1444.6	2260.2	0.27
Malaysia	269.1	497.8	766.9	0.25
Brazil	69.6	162.8	232.3	0.10
Bhutan	183.7	350.9	534.7	0.24
Nepal	152.3	290.7	443.0	0.24
Pakistan	161.9	297.1	458.9	0.26
Colombia	47.6	107.7	155.2	0.09
Vietnam	130.3	245.9	376.2	0.24
Singapore	172.1	297.5	469.6	0.32

Source Market	Direct contribution	Indirect contribution	Total	Contribution per enrolment
Taiwan	48.7	114.5	163.2	0.12
Hong Kong	117.3	216.3	333.5	0.24
Kenya	114.4	217.4	331.7	0.25
Indonesia	109.6	202.2	311.8	0.26
Philippines	76.8	161.7	238.5	0.20
Japan	49.3	89.3	138.6	0.12
South Korea	52.8	116.1	168.9	0.15
All Others	799.9	1510.7	2310.6	0.20
Total	4144.2	7790.5	11934.7	0.22

D.3 Economic Contribution by Key Sectors

TABLE D.3 ECONOMIC CONTRIBUTION FROM INTERNATIONAL STUDENTS BY KEY SECTORS

Key Sector	Direct contribution	Indirect contribution	Total
Value added			
Agriculture, forestry and fishing	-	\$44.8 m	\$44.8 m
Mining	-	\$16.5 m	\$16.5 m
Manufacturing	-	\$72.8 m	\$72.8 m
Electricity, gas, water and waste services	-	\$32.6 m	\$32.6 m
Construction	-	\$31.3 m	\$31.3 m
Wholesale trade	-	\$66.8 m	\$66.8 m
Retail trade	-	\$228.0 m	\$228.0 m
Accommodation and food services	-	\$80.9 m	\$80.9 m
Transport, postal and warehousing	-	\$104.5 m	\$104.5 m
Information media and telecommunications	-	\$39.6 m	\$39.6 m
Financial and insurance services	-	\$92.1 m	\$92.1 m
Rental, hiring and real estate services	-	\$451.4 m	\$451.4 m
Professional, scientific and technical services	-	\$63.2 m	\$63.2 m
Administrative and support services	-	\$85.1 m	\$85.1 m
Public administration and safety	-	\$11.7 m	\$11.7 m

Key Sector	Direct contribution	Indirect contribution	Total
Education and training	\$548.7 m	\$34.2 m	\$582.8 m
Health care and social assistance	-	\$47.6 m	\$47.6 m
Arts and recreation services	-	\$15.0 m	\$15.0 m
Other services	-	\$38.3 m	\$38.3 m
Total	\$548.7 m	\$1556.4 m	\$2105.0 m
Employment (FTE)			
Agriculture, forestry and fishing	-	247.5	247.5
Mining	-	22.5	22.5
Manufacturing	-	498.6	498.6
Electricity, gas, water and waste services	-	116.6	116.6
Construction	-	200.1	200.1
Wholesale trade	-	286.3	286.3
Retail trade	-	1577.5	1577.5
Accommodation and food services	-	1349.1	1349.1
Transport, postal and warehousing	-	510.1	510.1
Information media and telecommunications	-	134.1	134.1
Financial and insurance services	-	209.9	209.9
Rental, hiring and real estate services	-	183.0	183.0
Professional, scientific and technical services	-	402.3	402.3
Administrative and support services	-	375.6	375.6
Public administration and safety	-	129.0	129.0
Education and training	4144.2	384.2	4528.5
Health care and social assistance	-	396.9	396.9
Arts and recreation services	-	277.2	277.2
Other services	-	489.9	489.9
Total	4144.2	7790.5	11934.7

D.4 Economic Contribution from VFR by Key Sectors

TABLE D.4 ECONOMIC CONTRIBUTION FROM VFR BY KEY SECTORS

Key Sector	Direct contribution	Indirect contribution	Total
Value added			
Agriculture, forestry and fishing	-	\$0.6 m	\$0.6 m
Mining	-	\$0.3 m	\$0.3 m
Manufacturing	-	\$0.9 m	\$0.9 m
Electricity, gas, water and waste services	-	\$0.4 m	\$0.4 m
Construction	-	\$0.3 m	\$0.3 m
Wholesale trade	-	\$0.9 m	\$0.9 m
Retail trade	-	\$3.9 m	\$3.9 m
Accommodation and food services	-	\$1.0 m	\$1.0 m
Transport, postal and warehousing	-	\$1.4 m	\$1.4 m
Information media and telecommunications	-	\$0.3 m	\$0.3 m
Financial and insurance services	-	\$0.9 m	\$0.9 m
Rental, hiring and real estate services	-	\$5.8 m	\$5.8 m
Professional, scientific and technical services	-	\$0.6 m	\$0.6 m
Administrative and support services	-	\$0.9 m	\$0.9 m
Public administration and safety	-	\$0.1 m	\$0.1 m
Education and training	-	\$0.2 m	\$0.2 m
Health care and social assistance	-	\$0.3 m	\$0.3 m
Arts and recreation services	-	\$0.2 m	\$0.2 m
Other services	-	\$0.4 m	\$0.4 m
Total	-	\$19.4 m	\$19.4 m
Employment (FTE)			
Agriculture, forestry and fishing	-	3.2	3.2
Mining	-	0.3	0.3
Manufacturing	-	6.4	6.4
Electricity, gas, water and waste services	-	1.5	1.5
Construction	-	2.2	2.2
Wholesale trade	-	4.0	4.0
Retail trade	-	24.3	24.3
Accommodation and food services	-	17.3	17.3
Transport, postal and warehousing	-	6.8	6.8
Information media and telecommunications	-	1.1	1.1

Key Sector	Direct contribution	Indirect contribution	Total
Financial and insurance services	-	1.9	1.9
Rental, hiring and real estate services	-	2.4	2.4
Professional, scientific and technical services	-	3.7	3.7
Administrative and support services	-	3.4	3.4
Public administration and safety	-	0.9	0.9
Education and training	-	2.3	2.3
Health care and social assistance	-	2.7	2.7
Arts and recreation services	-	2.8	2.8
Other services	-	4.9	4.9
Total	-	92.2	92.2

E. Quotes

The value of international education goes well beyond the factors taken into account in this report. StudyPerth has spoken to industry leaders to get their comments on the importance of international education in Western Australia.

Quite apart from its economic contribution, the international education sector has also been a major catalyst for soft diplomacy which has benefited both the state and the nation. In the immediate aftermath of World War II, Australia shared with Western bloc powers a genuine concern that its Asian neighbours would succumb to the influence of communist ideology. A direct outcome of these concerns was the creation of the Colombo Plan which was effectively a tuition fee scholarship program for future leaders from countries in our region. Many of today's leading Asian politicians, scientists, academics and company CEOs recall with gratitude the Australian university education which was provided to them via this program (at various times time up to one third of Indonesia and Malaysia's Cabinet Ministers have been educated in Australia). Ever since then, Australia has been providing world class qualifications to our neighbouring region's future leaders.

Western Australia's universities and its other education providers (including high schools, English Language Colleges and TAFE) continue to imbue overseas students with our western democracy inspired ideals, ethics and "can do" multicultural spirit. The pedagogical framework that our academics have put in place encourages critical thinking, creative learning and team based project work. Given that many students from Asian countries have been educated in systems reliant on rote learning our universities are often opening their eyes and minds to what is possible.

There is also, increasingly, a happy juxtaposition between the teaching provided by our state's education institutions and the world of work. Global corporations are actively seeking out young graduates with the same above mentioned attributes. These corporations see Australian educated students as having global citizenship attributes which allow them to work effectively in teams across different political systems and cultures.

- Hon. Phil Honeywood, Chief Executive Officer, International Education Association of Australia

As a medical researcher, and later as Chief Scientist of Western Australia, I travelled the world. It soon became very clear to me that international students who study here benefit Australia in ways far beyond the immediate gains during their time with us, real as they are. Studying in Australia leaves a lasting and almost always positive impression that results in tangible and intangible gains that are hard, if not impossible, to achieve in other ways.

An Australia education is a fast-track to becoming influential members of the community on a student's return to their home country or wherever they live their lives. Australia must be at the cutting edge of new knowledge, essential in a fast-evolving world. Former international students bring those links to allow us to be part of leading international networks. As examples, those who enter the diplomatic, commercial and academic worlds have an advantage when forming international alliances and partnerships: there is a common understanding and greater confidence of a good outcome.

An immediate and as well as long term impact is that many international students undertake vital research here, often helping to form new or advancing established collaborations with leading overseas research teams. These links often continue to blossom long after the students' study periods, with exchange visits and access to international funding agencies from which Australia would otherwise be excluded. More broadly, former students spread the good news about Australia, encouraging tourism and recommending the next generation in turn to study here; similarly, in the commercial world, senior executives tend to recommend their most promising staff to gain further education in their Australian alma mater. In other words, by encouraging international students to study here we gain life-long 'informal ambassadors' that enhance our cause across the globe, and help to make the world a better place for everyone.

- Professor Lyn Beazley AO FAA FTSE, Former Chief Scientist and Western Australian of the Year

International students make a significant contribution to the cultural and economic prosperity of our State, particularly when it comes to attracting international tourists. A strong international student market will help attract visiting friends and relatives from overseas. International students are also important to resourcing the tourism workforce.

- Evan Hall, Chief Executive Officer, Tourism Council of WA

The contribution of international students [to the West Australian property market] is well understood by developers and urban planners, and for the first time this report reveals the actual economic value to WA. Visiting international students who invest in our State are attracted by the lifestyle, safety, amenity and long term capital growth prospects. Beyond contributing to the thousands of direct and indirect jobs in the property sector, international students and temporary migrants add to the vibrancy and viability of the places they inhabit, filling cafes, restaurants, shops and gyms.

- Sandra Brewer, Executive Director, Property Council of WA

Not only does the City of Perth value highly the significant contribution international students make to the economic health of Perth, we also recognise the vibrant role the presence of international students play in bringing Perth's cultural and entertainment precincts alive. This is why the City continues to invest in supporting the development and growth of the education sector within the city.

- Daniel High, Alliance Manager of Economic Development, City of Perth

The value gained from international education spreads way beyond the classroom and into our community, to support Australian society, our global standing, diplomatic, trade and investment relationships - all which have been enriched through our international education efforts. While the economic benefits are often spoken about, more importantly and more difficult to calculate, is the lasting legacy of an Australian education in our graduates and how it creates opportunities to enhance Australia's global capabilities on an international stage.

- Rebecca Hall, Head of International Education Centre of Excellence, Australian Trade and Investment Commission (Austrade)

The positive educational, professional, social and cultural experiences of WA's international students and alumni provide a valuable resource for promoting Perth and WA as a business events destination. International students are ambassadors for our state within Australia and internationally, not only as examples of the excellence of our educational institutions but also because they can provide authentic testimonials about the quality of the state as a destination in which to live, study and visit.

For Business Events Perth, the international student alumni that have studied in WA and now reside overseas, either in their home country or elsewhere, is an invaluable professional network that provides intelligence and connections into international business, industry and academia. This generates leads for business events that can be held in Perth, which, when secured, bring business visitors, trade and investment and global talent to the state, as well as stimulates knowledge exchange and innovation. In this way, international students have an important and enduring role in contributing to the economic and social development of WA.

- Gareth Martin, Chief Executive Officer, Business Events Perth

Western Australia's international education export market is most definitely an economic success story, however the social and cultural benefits Western Australia enjoys from our international education activity, whilst harder to quantify is equally important. In today's world we need to find ways for greater understanding of different cultures, traditions and languages and our international students provide us this opportunity. International students also bring different perspectives, points of view and approaches that enrich the research and learning environment for their local student counterparts, which ultimately enhances productivity, stimulates innovation and supports skills and preparedness for a changing global workforce.

I also see first-hand the engaged and active "citizenship" by international students within our local communities; be it playing in sporting teams, joining clubs, engaging in part-time work and giving back through volunteering. Their contribution is enormous and goes a long way in helping our communities to be more cohesive, more resilient and more inclusive.

- Morgan Lewis, Chief Executive Officer, Auspire

International Students are an important resource for the hospitality sector offering a range of language skills, diverse cultural understanding and the ability to be flexible with the demands of different customers from different countries. International Students are also great consumers in our economy both individually in their enjoyment of food, beverage and hospitality as well as in attracting visiting friends and relatives to Western Australia.

- Bradley Woods, Chief Executive Officer, Australian Hotels Association (WA)

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WA is the powerhouse of our nation's trade. Providing overseas students access to higher education makes a significant contribution to our economy and provides the foundation for greater trade and cultural exchange for generations to come.

The jobs created through international education extend beyond our universities and VET sector to sectors such as tourism, retail, hospitality and real estate.

- Chris Rodwell, Chief Executive Officer, Chamber of Commerce and Industry of Wesern Australia

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Having my son study in a school with international students, to me, means that he can gain the advantages of learning the value of empathy and understanding for different cultures. Something that I feel a lot of teenage boys can struggle with these days. As we move into a new and dynamic world, it is very likely that global mobility and diversity will be an increasing part of everyday life. With him learning beside international students in the classroom and making friends with other students from all corners of the globe, he gains the awareness and understanding needed that will see him better skilled to successfully navigate his pathway through life.

- Parent of a Year 11 student at St Mark's Anglican Community School

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It is an absolute pleasure and honour to host international students over 16 years. The bond between our students, myself and my family is strong and we simply couldn't imagine life without them. They bring with them culture, love, and an energy that we embrace. It has been a special privilege to host students from around the world and know we are part of their personal development and memories forever. To look back and know we have been part of a child's educational and personal growth journey is something we are very proud to be part of. We simply wouldn't have our family life any other way.

- Homestay Family

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