

Study pathways of international students in Australia, 2002 to 2005

Introduction

Many international students follow study pathways through the Australian education system rather than limiting their study to a particular sector or level of the education system. These pathways are based largely on the system of inter-sectoral linkages available through the Australian Qualification Framework (AQF) but also include English Language Intensive Courses for Overseas Students (ELICOS), foundation and non-award studies which are currently outside the AQF.

The uptake of various pathway options reflects the value students place on articulated progression through the different education sectors. The examination of international student pathways is based on data from the Provider Registration and International Student Management System (PRISMS), the source of Australian Education International's (AEI) International Students database and therefore is limited to international students studying in Australia on a student visa. Nevertheless, the analysis gives a useful picture of international student movements and linkages within the Australian education system.

This paper follows on from an earlier AEI report published in June 2005¹ which highlighted broad trends in study pathways for international students studying in Australia in the period 1 January 2002 to 31 December 2004. This paper extends the period by an additional year, that is, from 1 January 2002 to 31 December 2005.

Methodology

Two populations of international students studying in Australia for the period 1 January 2002 to 31 December 2005 were examined in this analysis. The first group contained the full population of students studying in Australia at some time during the reference period. The second, a subset of the first group, consisted of a cohort of students who commenced study in Australia for the first time in the year 2002.

The full set of data of all students studying in Australia was investigated in order to provide a general picture of international students in Australia and the nature of educational pathways undertaken by them. However, it should be noted that this cohort included international students already in the education system prior to 2002 and for whom pathways information was not available. These data also provide some context to the main analysis which focuses on the second cohort of international students who commenced study in Australia in the year 2002. As the data for the second cohort cover four full years, they reveal clear inter-sectoral pathways for the population. It should be noted that for both cohorts, there were instances of simultaneous multiple sector enrolments, mainly involving the ELICOS² sector. These instances, although not separately identified due to the complexities with extracting the information from PRISMS, were nonetheless of some interest as they contributed to the mix of pathways for international students. In addition, readers should note that for the purposes of this research paper, a period of study in a particular sector signifies a student has completed some study in the sector and does not necessarily indicate they have been awarded a qualification for that study.

¹ Available on the AEI website at > <http://aei.dest.gov.au/AEI/PublicationsAndResearch/OtherAEIResearch/Default.htm>.

² The *English Australia* Survey of Major ELICOS Regional Markets in 2005 (2006) found that only 49% of all ELICOS students travel to Australia on a student visa. AEI international student data relate only to students in Australia on a student visa and only data on these students are included in this paper.

All international students studying in Australia, 2002 to 2005

This section focuses on all international students studying in Australia in the period 1 January 2002 to 31 December 2005. It should be noted that no distinction was made between students who were studying in Australia before the start of the reference period and those who started their studies after 1 January 2002.

Sector

Of the 594,113 international students recorded in the Australian education system in the period 2002 to 2005, 71.5% were single sector students. Almost one-third (31.6%) were in Higher Education, 14.2% in ELICOS and 12.0% in Other³.

More than one-quarter (28.5%) of all international students were multiple sector students in the four year period (Table 1).

Table 1. Sector

<i>Sector studied in</i>	<i>Number of students</i>	<i>Prop of all students (%)</i>
Higher Education	187,926	31.6
ELICOS	84,641	14.2
VTE	55,827	9.4
Schools	25,010	4.2
Other	71,407	12.0
<i>Total sole-sector</i>	<i>424,811</i>	<i>71.5</i>
<i>Total multiple sector</i>	<i>169,302</i>	<i>28.5</i>
Total international students	594,113	100.0

Sector pathways

Of the 169,302 multiple sector students, 21.9% recorded an ELICOS-Higher Education pathway, followed by ELICOS-VTE (18.1%) and VTE-Higher Education (13.3%) (Table 2).

Table 2. Top 15 sector pathways for multiple sector international students

<i>Sector pathways</i>	<i>Number of students</i>	<i>Prop of all multiple sector students (%)</i>
ELICOS-Higher Education	37,024	21.9
ELICOS-VTE	30,622	18.1
VTE-Higher Education	22,484	13.3
ELICOS-Schools	11,691	6.9
Other-Higher Education	11,121	6.6
ELICOS-VTE-Higher Education	10,241	6.0
Schools-Higher Education	6,414	3.8
ELICOS-Schools-Higher Education	3,321	2.0
ELICOS-Other-Higher Education	3,198	1.9
Higher Education-VTE	3,143	1.9
ELICOS-Schools-VTE	2,649	1.6
ELICOS-Other	2,554	1.5
Schools-VTE	2,490	1.5
Schools-VTE-Higher Education	1,443	0.9
ELICOS-Higher Education-VTE	1,138	0.7
Total multiple sector international students	169,302	100.0

Note: Sector pathways shown in the table above may indicate an enrolment in more than one sector at the same time (i.e. simultaneous multiple sector enrolment) which cannot be separately identified.

³ Comprises Non-award courses such as 'Study Abroad', Foundation studies and Enabling courses.

Nationalities

Almost one-third (30.7%) of all multiple sector students were from China. Students from Hong Kong, the Republic of Korea and Indonesia combined contributed a further one-quarter (24.7%) of all multiple sector students.

The most common sectoral pathway for Chinese students was ELICOS-Higher Education, with almost one-third (32.6%), and a further 12.0% for ELICOS-Schools. The most common pathway for students from Hong Kong was VTE-Higher Education (22.4%) and Other-Higher Education (13.9%). Students from the Republic of Korea recorded an ELICOS-VTE (30.8%) and ELICOS-Schools (16.3%) sectoral pathways while students from Indonesia tended to follow the VTE-Higher Education (27.4%) and ELICOS-Higher Education (15.2%) pathways. More than two-thirds (68.6%) of Thai students recorded either an ELICOS-Higher Education or ELICOS-VTE pathway (37.6% and 31.0% respectively) (Table 3).

Table 3. Top 5 multiple sector international student nationalities: Most common sector pathways

<i>Sector pathways</i>	<i>China</i>	<i>Hong Kong</i>	<i>Republic of Korea</i>	<i>Indonesia</i>	<i>Thailand</i>
	<i>Proportion of students from each nationality (%)</i>				
ELICOS-Higher Education	32.6	4.8	14.0	15.2	37.6
ELICOS-VTE	6.3	12.5	30.8	10.6	31.0
VTE-Higher Education	5.0	22.4	7.3	27.4	4.7
ELICOS-Schools	12.0	5.4	16.3	2.3	2.4
Other-Higher Education	1.9	13.9	0.9	11.2	1.3
ELICOS-VTE-Higher Education	5.8	10.5	8.7	7.4	5.0
Schools-Higher Education	6.0	2.9	3.0	4.7	1.1
ELICOS-Schools-Higher Education	5.3	0.9	1.0	0.4	0.2
ELICOS-Other-Higher Education	1.5	5.3	1.7	2.0	0.9
Higher Education-VTE	0.8	1.1	0.8	3.1	1.3
ELICOS-Schools-VTE	3.7	1.7	1.0	0.6	0.3
ELICOS-Other	1.2	1.9	1.8	0.9	0.5
Schools-VTE	2.0	1.7	1.2	1.9	0.7
Schools-VTE-Higher Education	1.0	1.2	0.5	2.0	0.5
ELICOS-Higher Education-VTE	0.9	0.1	0.6	0.4	1.9
<i>Proportion of multiple sector students</i>	<i>30.7</i>	<i>9.3</i>	<i>7.8</i>	<i>7.6</i>	<i>7.5</i>

Note: Sector pathways shown in the table above may indicate an enrolment in more than one sector at the same time (i.e. simultaneous multiple sector enrolment) which cannot be separately identified.

Students who commenced study in Australia in 2002

This section discusses the analysis of data for the 2002 to 2005 period for the cohort of students who commenced study in Australia for the first time in the year 2002.

With the exception of the ELICOS sector, a high proportion of students remained in the sector of their first enrolment that is, they started and finished their course of study in Australia within the one sector. However, there are those who recorded study pathways from the sector in which they were first enrolled into another sector.

Overall, almost one-third (31.7%) of international students who commenced study in Australia in 2002 were Higher Education-only students. Other and ELICOS sector only students accounted for a further 12.6% and 11.5% respectively, followed by students with an ELICOS-Higher Education pathway (7.1%), VTE sector only (6.7%) and ELICOS-VTE (5.0%).

The analysis also showed that in addition to the 31.7% of the cohort who were Higher Education-only students, a further 22.4% recorded an inter sectoral pathway finishing in the Higher Education sector. Similarly, of the 6.7% who were VTE sector-only students, a further 8.8% recorded an inter sectoral pathway finishing in the VTE sector (Table 4).

Table 4. All international students who commenced in 2002: Sector pathways

<i>Sector pathway</i>	<i>Number of students</i>	<i>Prop of students (%)</i>
Higher Education	31,808	31.7
Other	12,673	12.6
ELICOS	11,554	11.5
ELICOS-Higher Education	7,152	7.1
VTE	6,699	6.7
ELICOS-VTE	4,986	5.0
VTE-Higher Education	4,336	4.3
Schools	3,391	3.4
Other-Higher Education	2,596	2.6
ELICOS-VTE-Higher Education	2,590	2.6
Schools-Higher Education	1,725	1.7
ELICOS-Schools	1,553	1.5
ELICOS-Schools-Higher Education	1,268	1.3
ELICOS-Schools-VTE	1,011	1.0
ELICOS-Other-Higher Education	862	0.9
Schools-VTE	690	0.7
Higher Education-VTE	514	0.5
ELICOS-Schools-VTE-Higher Education	296	0.3
ELICOS-Higher Education-VTE	266	0.3
Other-VTE-Higher Education	249	0.2
ELICOS-Other	243	0.2
Schools-VTE-Higher Education	240	0.2
Other-VTE	149	0.1
ELICOS-VTE-ELICOS	147	0.1
ELICOS-Schools-ELICOS-VTE	136	0.1
VTE-Higher Education-VTE	135	0.1
ELICOS-Higher Education-ELICOS	131	0.1
ELICOS-VTE-ELICOS-Higher Education	131	0.1
ELICOS-Schools-ELICOS	123	0.1
ELICOS-Other-VTE-Higher Education	122	0.1
All international students	100,412	100.0

Number of sectors

Of the 100,412 international students who commenced study in Australia in 2002, two-thirds (65.9%) were enrolled in a single sector in the four years to the end of 2005. A further one-quarter (25.2%) were enrolled in two sectors, 8.0% in three sectors and only a small proportion of students (0.9%) were in four or more sectors (Table 5).

Table 5. Student numbers and number of sectors

<i>Number of sectors studied in</i>	<i>Number of students</i>	<i>Prop of students (%)</i>
1	66,125	65.9
2	25,285	25.2
3	8,047	8.0
4	919	0.9
5 or more	36	0.0
<i>Sub-total (multiple sector)</i>	<i>34,287</i>	<i>34.1</i>
Total international students	100,412	100.0

Single sector students

A large proportion (48.1%) of all 2002 commencing single-sector students were in Higher Education. The number of students in this sector was two and a half times that of the Other sector (19.2%), the next highest sector. The ELICOS sector accounted for 17.5% of students and the Schools sector for only 5.1% (Table 6).

Table 6. Single sector type and student numbers

<i>Sector type</i>	<i>Number of students</i>	<i>Prop of students (%)</i>
Higher Education	31,808	48.1
Other	12,673	19.2
ELICOS	11,554	17.5
VTE	6,699	10.1
Schools	3,391	5.1
Total single sector students	66,125	100.0

Almost all (97.8%) students first enrolled in the Higher Education sector were single sector students. This indicates that most international students who come to Australia to undertake Higher Education study do so without any intention of articulating into another sector.

Of all international students who first enrolled in the ELICOS⁴ sector, one-third (34.2%) were single sector students and of the students first enrolled in the VTE sector, three-in-five (58.4%) were VTE sector-only students. Just over half (51.6%) of students first enrolled in the schools sector were single-sector students. Three-quarters (77.5%) of these students were completing their secondary studies.

The Other sector includes courses which generally do not lead to a qualification under the AQF. These courses include non-award study and those that serve as enabling courses for other areas of study. Four out of five (79.1%) students who first enrolled in the Other sector did not articulate to any other sector. The largest proportion (56.4%) were American students in the non-award Study Abroad programme.

⁴ ELICOS students studying in Australia on a student visa.

Multiple sector student pathways

Of the 34,287 multiple sector students, one-in-five (20.9%) recorded an ELICOS-Higher Education pathway, followed by ELICOS-VTE (14.5%) and VTE-Higher Education (12.6%). The next most common pathways were Other-Higher Education and ELICOS-VTE-Higher Education (7.6% each) (Table 7).

The three most common pathways for the 2002 commencement cohort were the same as those recorded for the full population of all international students in Australia discussed earlier.

Table 7. Multiple sector students: Top 20 sector pathways

<i>Sector pathway</i>	<i>Number of students</i>	<i>Prop of students (%)</i>
ELICOS-Higher Education	7,152	20.9
ELICOS-VTE	4,986	14.5
VTE-Higher Education	4,336	12.6
Other-Higher Education	2,596	7.6
ELICOS-VTE-Higher Education	2,590	7.6
Schools-Higher Education	1,725	5.0
ELICOS-Schools	1,553	4.5
ELICOS-Schools-Higher Education	1,268	3.7
ELICOS-Schools-VTE	1,011	2.9
ELICOS-Other-Higher Education	862	2.5
Schools-VTE	690	2.0
Higher Education-VTE	514	1.5
ELICOS-Schools-VTE-Higher Education	296	0.9
ELICOS-Higher Education-VTE	266	0.8
Other-VTE-Higher Education	249	0.7
ELICOS-Other	243	0.7
Schools-VTE-Higher Education	240	0.7
Other-VTE-Higher Education	149	0.4
ELICOS-VTE-ELICOS	147	0.4
ELICOS-Schools-ELICOS-VTE	136	0.4
Total multiple sector students	34,287	100.0

Note: Sector pathways shown in the table above may indicate an enrolment in more than one sector at the same time (i.e. simultaneous multiple sector enrolment) which cannot be separately identified.

Nationalities

The largest group of 2002 student commencements were from China, accounting for 15.6% of students in all sectors. Students from the USA, Japan, Malaysia and Hong Kong accounted for between 6.0% and 9.2% of students per nationality.

Single sector nationality

Of the 66,125 students enrolled in a single sector, 13.7% were from the USA. A significant proportion of these American students were in Australia in a non-award Study Abroad program. The next largest groups of students were from Malaysia (8.5%), Japan (7.7%) and China (6.8%). Most Malaysian, Chinese and Singaporean students were in the Higher Education sector (88.5%, 75.6% and 91.2% respectively), while most Japanese students were in the ELICOS sector (59.8%) (Table 8).

Table 8. Single sector students: Top 10 nationalities by sector

<i>Nationality</i>	<i>Higher Education</i>	<i>VTE</i>	<i>Schools</i>	<i>ELICOS</i>	<i>Other</i>	<i>Total (no.)</i>
	<i>Proportion of students from each nationality (%)</i>					
United States of America	14.5	5.6	1.0	0.0	78.9	9,065
Malaysia	88.5	5.9	3.0	0.6	2.0	5,642
Japan	10.0	14.4	8.9	59.8	6.8	5,083
China	75.6	5.2	10.5	7.8	0.9	4,523
Singapore	91.2	3.2	3.1	0.0	2.5	4,120
India	91.3	7.4	0.6	0.1	0.6	3,562
Republic of Korea	17.7	7.3	11.0	61.0	3.0	3,203
Indonesia	76.2	13.3	5.3	3.9	1.4	2,730
Hong Kong	63.2	13.7	9.1	9.6	4.4	2,175
Thailand	32.5	11.8	7.8	44.7	3.2	2,061

Multiple sector nationality

The most common nationalities among the 34,287 multiple sector students were China (32.4%), Hong Kong (11.2%), Thailand (8.4%) and Indonesia (7.6%). The most common sector pathways of multiple sector students differed for each nationality. More students from China, Thailand, the Republic of Korea and Taiwan recorded an ELICOS-Higher Education pathway than any of the other top eight nationalities. Students from Hong Kong and Indonesia were more likely to take a VTE-Higher Education pathway.

Of the Chinese students, more than one-quarter (28.5%) recorded an ELICOS-Higher Education pathway. Almost equal proportions recorded ELICOS-Schools-Higher Education and Schools-Higher Education pathways (10.3% and 10.2% respectively). Together, around half (49.0%) of all Chinese multiple sector students recorded these three pathways.

The most common pathways for students from Hong Kong were VTE-Higher Education (21.7%), Other-Higher Education (15.8%), and ELICOS-VTE-Higher Education (12.4%). Thai students were more likely to take the ELICOS-Higher Education and ELICOS-VTE pathways, undertaken by over two-thirds (67.9%) of students. VTE-Higher Education and ELICOS-Higher Education pathways (25.7% and 16.9% respectively) pathways were the most commonly recorded for students from Indonesia (Table 9).

Table 9. Multiple sector students: Top 8 nationalities and most common sector pathways

<i>Nationality and Sector pathway</i>	<i>Number of students</i>	<i>Prop of total for each nationality (%)</i>
<i>China</i>		
ELICOS-Higher Education	3,168	28.5
ELICOS-Schools-Higher Education	1,144	10.3
Schools-Higher Education	1,137	10.2
<i>Hong Kong</i>		
VET-Higher Education	834	21.7
Other-Higher Education	606	15.8
ELICOS-VET-Higher Education	476	12.4
<i>Thailand</i>		
ELICOS-Higher Education	1,163	40.3
ELICOS-VET	796	27.6
ELICOS-VET-Higher Education	191	6.6
<i>Indonesia</i>		
VET-Higher Education	674	25.7
ELICOS-Higher Education	443	16.9
Other-Higher Education	338	12.9
<i>Japan</i>		
ELICOS-VET	938	41.9
ELICOS-Higher Education	318	14.2
ELICOS-VET-Higher Education	181	8.1
<i>Republic of Korea</i>		
ELICOS-Higher Education	363	20.2
ELICOS-VET	360	20.0
ELICOS-Schools	336	18.7
<i>Taiwan</i>		
ELICOS-Higher Education	485	34.3
ELICOS-VET-Higher Education	212	15.0
ELICOS-VET	194	13.7
<i>Malaysia</i>		
Other-Higher Education	488	34.5
VET-Higher Education	363	25.7
Schools-Higher Education	148	10.5

Single sector students and levels of study pathways

As discussed above, a large proportion of international students were single sector students. Most studied at a single level of study however, there were those who recorded level of study pathways within a sector.

Higher Education sector

Most Higher Education students were undertaking a Bachelor Degree (54.2%) and Masters by Coursework (28.8%). Other levels of study included Graduate Diploma (3.5%) and Doctor of Philosophy (3.3%). The most common levels of study pathways of Higher Education students undertaking more than one level were Bachelor Degree-Masters by Coursework (3.7%) and Graduate Diploma-Masters by Coursework (1.7%).

VTE sector

The level of study undertaken by a large proportion of VTE students was a Diploma (42.0%). This was just over three times the next highest level, Certificate III (14.9%) and four times that for a Certificate IV or an Advanced Diploma (10.2% each).

Smaller proportions of VTE students recorded undertaking more than one level of study pathway—Diploma-Advanced Diploma (3.1%) and Certificate IV-Diploma (3.0%).

Schools sector

More than three-quarters (77.5%) of students in the Schools sector were in Secondary School Studies, followed by smaller proportions in Primary School Studies (18.1%) and a combination of Primary and Secondary School Studies (4.4%) (Table 10).

Table 10. Single sector students: Most common level of study pathways

<i>Sector and Level of study pathway</i>	<i>Number of students</i>	<i>Prop of sector (%)</i>
<i>Higher education</i>		
Bachelor Degree	17,241	54.2
Masters Coursework	9,150	28.8
Bachelor Degree-Masters Coursework	1,175	3.7
Graduate Diploma	1,118	3.5
Doctor of Philosophy	1,048	3.3
Graduate Diploma-Masters Coursework	556	1.7
Bachelor Degree-Graduate Diploma	199	0.6
Masters Research	188	0.6
Masters Coursework-Graduate Diploma	136	0.4
Graduate Certificate	132	0.4
<i>VTE</i>		
Diploma	2,812	42.0
Certificate III	997	14.9
Certificate IV	685	10.2
Advanced Diploma	681	10.2
Certificate II	210	3.1
Diploma-Advanced Diploma	209	3.1
Certificate IV-Diploma	202	3.0
Certificate III-Diploma	101	1.5
<i>Schools</i>		
Secondary School Studies	2,628	77.5
Primary School Studies	615	18.1
Primary School Studies-Secondary Studies	148	4.4