

Exports of educational services attributable to the overseas student industry in Australia

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By 2008 the Australian overseas student industry contributed \$15.5 billion in export income to the Australian economy. This, at least, is the claim of Australian Education International (AEI), which is responsible for overseeing and promoting the overseas student industry in Australia.¹ AEI is part of the Commonwealth government's Department of Education, Employment and Workplace Relations (DEEWR).

According to AEI, education services 'remains Australia's third largest export, behind coal and iron ore (\$46 billion and \$30.2 billion respectively) and the largest services export industry ahead of personal travel services (\$11.7 billion)'.² This assertion has been endorsed by other education authorities. Universities Australia, the peak body representing Australian universities, states that: 'education exports increased from \$12.2 billion in 2007 to \$15.7 billion in 2008, making education also the clear number one service export ahead of tourism.'³ The \$15 billion plus figure now routinely prefixes newspaper accounts of the industry.

These estimates are not generated by the education industry itself. They derive from the Australian Bureau of Statistics (ABS). The ABS prepares regular estimates of trade in services, which includes tourism and educational services, as part of its overall estimates of the contribution of international trade to Australia's balance of payments. The estimates for this trade in relation to education over the years 2003–04 to 2007–08 are shown in Table 1. They show that this trade generated a credit of \$13.7 billion by 2007–08. The comparable figure for 2008, which is the basis for statements in the previous paragraph, was \$15.0 billion. This \$13.7 billion covers the estimated expenditure of overseas students on living expenses (\$8.2 billion in 2007–08), fees (\$5.4 billion in 2007–08) while studying in Australia and a small AusAid/Defence contribution. When the ABS refers to trade in educational services which is attributable to overseas students it is referring to this expenditure.

In the subsequent analysis, the 2007–08 figures have been used because at the time of this inquiry the calendar year 2008 figures for the balance of payments accounts had not been released. The relevance of these accounts for the analysis is explained below.

Table 1: International trade in services, credits, education related travel, by educational sector by type of expenditure, 2005 to 2008, A\$ millions

	2003/04	2004/05	2005/06	2006/07	2007/08
Goods and services					
Higher education	2962	3492	3927	4428	5195
Vocational	612	617	714	995	1681
Schools	404	406	395	444	556
SV ELICOS	257	258	312	374	418
New Zealand	50	54	57	68	86
Non-Award	163	214	227	233	272
Total	4449	5042	5633	6541	8207
Fees					
Higher education	2099	2405	2596	2759	3110
Vocational	337	379	551	736	1170
Schools	290	292	284	302	360
SV ELICOS	252	241	275	337	392
New Zealand	25	27	26	27	31
Non-Award	197	236	248	266	315
Total	3201	3579	3981	4428	5378
Total expenditure					
Higher education	5061	5898	6524	7187	8304
Vocational	950	996	1265	1731	2851
Schools	694	697	679	746	916
SV ELICOS	509	499	587	712	810
New Zealand	75	81	83	95	116
Non-Award	360	450	476	499	587
Total	7649	8621	9615	10970	13585
AusAid/Defence	117	121	130	140	155
Total	7766	8742	9745	11110	13740

The figures provided in Table 1 raise questions about whether exports of educational services as defined by the ABS can be equated with exports of wheat or iron ore. This is because the majority of the expenditure is the \$8.2 billion spent on goods and services (rent, food, books, etc) by overseas students while studying in Australia.

This treatment would make sense if all the money spent by students was brought into Australia from overseas. But, as everyone knows, this is not the case. Many overseas students work while in Australia, and indeed are permitted to do so for up to 20 hours a week under the student visa arrangements that govern their study in this country.

By contrast, the payments for exports such as wheat, wool and other commodities are usually sourced to a foreign buyer who may not even be in Australia. Even if the buyer or his agent is in Australia, it is unlikely that much money will be spent in Australia, other than for the purchase of the commodity. Nor is the foreign buyer of wheat or wool likely to have raised the money to purchase the commodity from earnings in Australia.

As explained below, the ABS does make an adjustment to take account of student earnings in Australia. However, none of the media statements put out by the education industry acknowledge that this adjustment occurs, nor do they indicate the amount involved. The interested public is left to believe that every dollar of the \$13.7 billion in 2007–08 (or \$15.0 billion in 2008) can be counted as export income.

It is misleading to ignore overseas student earnings in Australia or any other support they receive, such as scholarships, in calculating export earnings from the education industry. There are models for how these estimates should be prepared. The annual calculations

prepared by NAFSA: the Association of International Educators in the US, provide such a model. For the year 2007–08, NAFSA has estimated that the amount the 623,805 international students brought to support their education and stay in the United States was US\$15.54 billion. NAFSA's calculations exclude 'any US funding or employment the international students may be receiving in an effort to best represent these export dollars flowing into the US economy'.⁴

Given the size of the US overseas student body, the \$15.54 billion figure may seem low. It is a product of NAFSA estimates that, on average, each student spent US\$18,260 on living expenses and US\$16,189 on fees, or US\$35,315 in total in 2007–08. NAFSA estimates that each student receives US\$10,415 from earnings in the US or other forms of support from US sources. The total foreign funds transferred to the US which are attributable directly to the overseas student presence, is the sum of the expenditure estimates minus the earnings estimate. It amounts to US\$24,900 per student. As we will see, though in US dollars, these estimates are much lower than the ABS estimates for overseas student expenditure in Australia.⁵

ABS treatment of income earned in Australia

The ABS follows international practice in its accounting for trade in exports of services. The standards for this practice are set by the International Monetary Fund. The international practice is to treat the expenditures of non-resident overseas students while studying in Australia (including fees and living expenses) as exports, just like the expenditures of tourists.

However the ABS makes an adjustment elsewhere to the balance of payments accounts, where the income earned in Australia by students, tourists or other non-residents who receive earnings while in Australia is noted. This comes in the form of a 'compensation for employees' item, which is recorded as a debit in the balance of payments accounts. For the year 2007–08 this amount was estimated at \$2.3 billion.⁶ Again, this mode of reporting is in accord with international standard practice.

There are no accompanying notes to the ABS releases on international trade in services and the balance of payments which remind the reader of the significance of these reporting conventions. The public is not told that some of the money expended on educational services was earned in Australia, rather than being expenditure of foreign currency exchanged for Australian dollars.

Perhaps on this account, the overseas education industry, including AEI and Universities Australia can be excused for treating the entire \$13.7 billion for 2007–08, and \$15 billion in 2008, as export revenue akin to the sale of wool or wheat. Yet it is well known that most overseas students enter the Australian labour market and that the income they earn is used to defray expenses here, including fees and to pay off loans taken in the home country.

Thus the \$13.7 billion figure for exports of educational services 2007–08 is not what it seems. It must be reduced to take into account the money earned by overseas students while in Australia. The question is by how much.

A further critical question concerns the accuracy of the ABS estimates of overseas student expenditure while in Australia. The organisations and individuals that cite the ABS estimates appear to accept them without question, despite the absence of published information as to how they were calculated. It is not that the relevant ABS officers are unwilling to discuss the issue. These officers have been open in disclosing their accounting conventions and the core assumptions they use in preparing their estimates.

Student earnings and expenditure while in Australia

The ABS has indicated to the author that between 50 to 60 per cent of the \$2.3 billion of the 'compensation to employees' in 2007–08 was attributable to the earnings of overseas students. This means that the ABS estimate of overseas student earnings while in Australia in 2007–08 was about \$1.2 billion. According to the ABS this estimate is based on a 2004 survey of overseas students conducted by DEEWR.

The ABS has relied on monthly Department of Immigration and Citizenship (DIAC) stock counts for the number of overseas students it assumes were in Australia during 2007–08. These counts measure the number of student visa holders in Australia at a particular time. The average number over the 12 months during 2007–08, according to the ABS, was 273,590. This figure is well below the estimates for student enrolments prepared by AEI. AEI estimates that there were 370,238 overseas students enrolled in university, VET, ELICOS and high school courses at some time during 2007 and 435,263 in 2008⁷. These estimates are for discrete students, that is, they do not double count for students enrolled in more than one course during 2007 or 2008. However the AEI figures do not adjust for the time these students actually spent in Australia during 2007 or 2008. The ABS figures do make this adjustment because they use a stock number of students in Australia for each month of the relevant year. This is computed by the Department of Immigration and Citizenship (DIAC) on the basis of DIAC's counts of student visa-holders in Australia at particular points in time. For this reason they are used in the following analysis.

As noted, the ABS estimate for student earnings in Australia (the 'compensation for employees' amount) in 2007–08 was \$1.2 billion. This implies that the average earnings per student while in Australia during 2007–08 was \$4,386 (\$1.2 billion divided by 273,590).

The ABS estimates for student expenditures on goods and services and fees as shown in Table 1 are also based on the 2004 DEEWR survey, adjusted for inflation. There has been no more recent survey by DEEWR or any other educational agency from which the ABS could draw up-to-date data. I have not examined the 2004 survey because it is not available on the DEEWR website and at the time of writing the custodian of the data within DEEWR had not released it.

The ABS estimates for goods and services and fees shown in Table 1 for 2007–08 of \$8.2 billion imply an average expenditure of \$29,972 per student for goods and services (\$8.2 billion divided by 273,590). In the case of the \$5.4 billion for fees, the average expenditure would be \$19,737 per student. Thus each student would, on average, have to have access to \$49,709 to finance expenses and fees in 2007–08.

The ABS earnings estimates appear to be low and the expenditure estimates way too high (see below). The explanation appears to be that the 2004 data the ABS is relying on relates to the relatively affluent overseas students attending mainstream universities at the time. Since 2004, there have been huge changes to the country and class origin of students and their study destination when in Australia. Table 2 provides some insight into these changes. The figures in the table derive from AEI enrolment statistics. They have to be interpreted carefully, since the enrolment figures for the VET sector exaggerate the total student numbers enrolled in the sector. VET student typically enrol in a new course each year whereas university students usually stay in the course they begin until they graduate. As a result, the VET figures have to be halved in order to approximate them with the higher education enrolment figures.

Taking this adjustment into account, it is evident that in 2004 and earlier years, most overseas students would have been enrolled at the university level. The main source countries for universities in these years apart from China were Malaysia, Hong Kong, Singapore and Indonesia. Most of these students were of Chinese ethnic origin and were drawn from relatively affluent backgrounds. Enrolments from these four source countries have declined since 2004. In recent years the main source of growth in university enrolments has been from the relatively poor countries of mainland China and India.

A further critical change to the make up of the overseas student population is the rapid surge since 2005 in the numbers enrolled in the VET and ELICOS sectors. The dominant source of growth in the VET sector has been students from the subcontinent of India. Many of these students are being drawn from regional and rural backgrounds. By 2007 only 45 per cent of student enrolments were in the higher education sector.

One indication that the ABS estimates do not take this change in enrolment patterns into account is their fee estimates. These are based on what DEEWR reported was paid in 2004. The annual fee of \$19,737 is representative of Group of 8 universities (which dominated enrolments earlier this decade). This fee level is far above that charged by regional universities like Central Queensland University, which have become major players in the overseas student industry in recent years, and nearly double the annual fee overseas students pay to attend hospitality courses in the VET sector.

Nationality	2002	2003	2004	2005	2006	2007	2008
Higher Education							
China	16,073	22,389	30,523	40,299	46,297	48,944	52,663
India	8,834	12,232	17,716	22,070	24,939	26,157	27,482
Malaysia	13,514	15,384	15,841	15,286	14,797	15,069	15,633
Singapore	10,399	10,162	9,195	8,302	7,816	7,439	7,473
Indonesia	11,362	11,314	10,498	9,506	8,605	7,826	7,430
Hong Kong	8,280	10,006	10,657	10,159	8,775	7,687	7,265
Korea, Republic of (South)	3,661	4,436	4,926	5,256	5,442	5,799	6,301
Thailand	4,879	5,599	5,648	5,181	4,833	4,668	4,233
Viet Nam	1,729	2,005	2,158	2,356	2,565	2,933	3,880
Other	36,610	41,240	43,530	44,253	45,529	47,813	49,599
Higher Education Total	115,341	134,767	150,692	162,668	169,598	174,335	181,959
VET							
India	2,223	1,441	1,616	3,840	10,307	26,952	52,236
China	5,786	8,194	10,614	12,863	14,827	18,977	25,823
Nepal	498	378	317	518	1,237	5,369	12,797
Korea, Republic of (South)	4,650	3,803	3,601	4,523	6,031	7,604	9,358
Thailand	3,694	4,412	4,347	4,857	5,622	6,900	8,621
Brazil	1,228	1,302	1,591	2,327	3,496	4,380	5,354
Indonesia	5,160	4,718	4,032	3,603	3,561	4,152	5,247
Bangladesh	1,046	1,394	1,970	2,288	2,973	4,009	4,236
Hong Kong	5,659	5,884	5,137	4,407	4,257	4,303	4,229
Japan	3,925	4,641	4,809	4,892	4,705	4,273	3,787
Other	19,804	20,749	20,188	21,447	25,502	32,843	42,950
VET Total	53,673	56,916	58,222	65,565	82,518	119,762	174,638
Grand Total	169,014	191,683	208,914	228,233	252,116	294,097	356,597
Source: AEI, enrolments data, 2002 to 2008							

University students or their families from Hong Kong, Malaysia, Singapore and Indonesia may be able to afford to spend some \$49,000 per year on expenses and fees. But few of the students or their families from the poorer backgrounds just described could afford such sums. In India and China established professionals earn around \$5,000 a year. These families, let alone those from regional and rural backgrounds, would struggle to raise anything like the average annual expenses estimated by the ABS. For many families, even to raise the annual course fees, would require a substantial loan.

These preliminary observations raise questions about whether contemporary international students could afford the limited recourse to the Australian labour market implied by the ABS earnings estimate of just \$4,386 a year. If expenditure on fees and expenses were around \$49,000 per year many would surely need to rely on a far greater level of Australian earnings.

Earnings

Analysis of this issue is hampered by a paucity of research on the topic. As a recent review of the question has noted, 'there is a serious deficiency of literature that can cast light on the state of international student finances'.⁸ The few studies available, which are entirely of university students, date to the early part of this decade. They are generally consistent with the low earnings estimates reported by the ABS.⁹

But things are changing as Chris Nyland and his colleagues report in their recent study of some 200 university students (which was weighted to the PhD and Masters end of the study spectrum). Some 70 per cent of their interviewees worked at some time during their stay in Australia. A substantial minority, particularly of those coming from China and India were under severe financial pressure, thus necessitating many hours of paid work.¹⁰

Overseas students are permitted to work for 20 hours per week (and full-time during holidays). A student earning at the low rate of \$10 an hour for 20 hours work a week for fifty weeks would earn around \$10,000 a year. Many would work longer hours because they need more than \$10,000 a year. It is difficult for educational institutions to enforce the 20 hours per week restrictions. Employers and VET colleges have little incentive to report excess work hours. For their part, the universities have only limited obligations to track the work record and class attendance of their overseas student enrollees.

Since there are no recent estimates of overseas student earnings to draw on it is not possible to give any precise figure on these earnings. Even if such surveys were available they would have to be assessed cautiously given the reluctance of students to reveal their hours or earnings for fear of attracting attention from tax or immigration authorities.

One indication may be the earnings of domestic full-time undergraduates. The median income of these students in 2006 was estimated to be \$11,000. Of this, \$8,270 came from earnings in the labour market.¹¹

Overseas students face more pressing financial issues than domestic students because they cannot rely on their families for day to day food and lodging. Apart from the minority from affluent backgrounds, most have to obtain income from employment in Australia. These students now have an obvious presence across metropolitan service industries in Melbourne, Sydney and Brisbane. The anecdotal evidence is that VET students, in particular, start work almost from the day they arrive in Australia.

For these reasons, I have assumed that overseas students earn at least as much as their domestic full-time undergraduates, that is, around \$9,000 by 2007–08.

Overseas student expenditures

Overseas students have no choice but to pay their annual course fees, which the ABS has estimated average nearly \$20,000 by 2007–08. As indicated, this estimate appears to be too high, given the change in enrolment patterns described above. University courses typically cost between \$14,000 and \$20,000 a year depending on the course and institution. However much of the rapid growth in university enrolments has been amongst providers like Central

Queensland University whose charges are at the bottom end of this spectrum. In the case of VET courses, the typical annual charge for courses including cooking and hairdressing are about \$10,000. I have assumed that the average annual fee is around \$14,000.

This estimate implies somewhat less financial pressure on overseas students. But there remains the cost of living while studying in Australia, which the ABS has estimated to average \$29,972. As indicated, this estimate appears to be too high given that it is on top of the payment of fees of around \$14,000. It implies that the average overseas student derives from an affluent background and that their families are extremely generous in providing living expense assistance.

I do not think the ABS estimate for average expenditure on goods and services of \$29,972 is a plausible figure. It is likely to be considerably lower and to reflect the actual costs of a fairly austere student lifestyle.

How much does it cost for students to live in Australia? The Universities Australia study provides an indication. It estimated that the median annual expenditure for full-time domestic undergraduate students in 2006 was \$11,320.¹² Overseas students will generally need much more, primarily because they do not have access to subsidised family assistance for board and lodging. Assuming rent of \$150 per week or \$8,000 per year on top of the \$11,320 annual expenditure this would amount to some \$20,000 per year by 2007–08.

Even \$20,000 seems a high figure in light of the changing background of overseas students, at least if it was coming primarily from family sources. It is for this reason that many overseas students have little choice but to work long hours in the Australian labour market. This situation gives additional credence to the estimate that current students earn on average some \$9,000 a year.

Export revenue from the overseas student industry

In order to estimate the contribution to trade revenues from the overseas student industry, two sets of adjustments to the ABS figures shown in Table 1 need to be made. The first concerns the ‘compensation for employees’ item, that is, the amount overseas students earn while in Australia. I have estimated this to be at least \$9,000 per student or \$2.4 billion (rather than the \$1.2 billion as in the ABS balance of payments accounts). The second is the adjustment to the average expenditure of overseas students in Australia. My estimate was that the average student spent \$20,000 per year on expenses and \$14,000 on fees, or \$34,000 in all for the year 2007–08. Thus the total expenditure for all 273,590 students in 2007–08 would be \$9.3 billion (rather than \$13.6 billion as shown in Table 1).

The contribution of the overseas student education industry to Australia’s external trade account in 2007–08 is thus \$9.3 billion minus \$2.4 billion or \$6.9 billion. The addition of \$155 million AusAid/Defence would bring the contribution to around \$7 billion.

Conclusion

The conclusion that the export of educational services attributable to the overseas student industry may be half the commonly-stated \$15 billion, will no doubt come as a shock.

My estimates are as open to challenge as those of the ABS. As acknowledged, there is very little hard data based on the earnings and expenditures of overseas students in Australia. As a result, the estimates presented have had to be based on plausible assumptions about the circumstances overseas students face in Australia and their sources of financial assistance from home. The key point of difference with the ABS analysis is the ABS estimate that the average overseas student spent some \$49,000 on expenses and fees in 2007–08. This is not

credible given the changes in the origins and enrolment patterns of overseas students since 2004.

It is clear that those relying on the ABS \$15 billion estimates have not probed into how these estimates are put together. At the very least, the public should be advised about the ABS adjustment to take account of overseas student earnings in Australia. As to the size of these earnings and of the expenditure on goods and services and fees in Australia, it is hoped that the exposure of some of the assumptions used by the ABS will prompt a vigorous debate about these estimates as well.

Endnotes

¹ AEI, *Research Snapshot*, June 2009

² *ibid.*

³ Universities Australia, Media Release, 6 February 2009, 'Education stronger as Australia's third largest export'

⁴ J. Baumgartner, 'The economic benefits of international education to the United States', *GlobalHigherEd*, <<http://globalhighered.wordpress.com/2009/05/13/economic-benefits-of-international-education-to-the-united-states>>, posted 13 May 2009, accessed 28 July 2009

⁵ NAFSA, *The Economic Benefits of International Education to the United States for the 2007-08 Academic Year: A Statistical Analysis*, 2008
<http://www.nafsa.org/_/file/_/eis08/usa.pdf>

⁶ ABS, *Balance of Payments and international investment position*, March Quarter, 2009, cat. No. 5302.0

⁷ AEI, *Research Snapshot*, March 2009

⁸ H. Forbes-Mewett, N.D. 'Australian University *International Student Finances*', unpublished

⁹ C. Nyland, H. Forbes-Mewett, S. Marginson, G. Ramia, E. Sawir and S. Smith, *Journal of Education and Work*, Vol. 22, No. 1, Feb 2009, pp. 3-4

¹⁰ *ibid*

¹¹ *Australian University Student Finances 2006*, Universities Australia, August 2007, p. 5

¹² *ibid*, p. 5