

## **THE ECONOMIC IMPACT OF THE OVERSEAS STUDENT INDUSTRY: SPECIAL REFERENCE TO THE WOLLONGONG ECONOMY**

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**ABSTRACT** This paper estimates the impact of overseas student spending on employment, income, and service exports. It is based on a case study of overseas students studying at the University of Wollongong. Results are significant and give encouragement to those arguing for expanding overseas student enrolments on economic grounds. However, to the extent that overseas students consume real resources, there are costs involved in their enrolments in Australian Universities. Some of these costs, along with other potential benefits are identified in this paper, and it is argued that they should be internalised into future plans to expand this industry. Finally, potential impediments to the longer term sustainability of exporting education are analysed. In particular, threats to the international standing of Australian Universities, and the degree of overseas student satisfaction in the education services they have purchased.

### **1. INTRODUCTION**

In recent times there has been increasing competition among Australian Universities to attract the overseas student dollar. This has generated discussion among some academics as to whether this is being facilitated by compromising academic standards. This is yet to be established, though if it is occurring it will jeopardise the international reputation of Australia's University system, and paradoxically the demand for Australian qualifications overseas in the long run. Future demand for our degrees will also be effected by the extent to which currently enrolled overseas students are satisfied with the services provided by Australian universities. Poor satisfaction will create bad publicity. If in the long term the demand for our education services declines, then there is much more at stake than merely depleting university fees revenue.

Using a 1992 study of overseas students at the University of Wollongong, such students are estimated to generate significant employment, income and export benefits for Australia through their expenditures. Servicing these students forms an important commercial industry which can no longer be considered as merely a foreign aid obligation. This is illustrated in Table 1, with the extensive rise in full fee paying students in the past decade, and the absolute decline in students sponsored by the Australian government. It is because of the broader benefits that these students create, that the Federal Government has a responsibility to monitor the treatment of overseas students and the reputation of courses, in Australian Universities.

**Table 1.** Number of Overseas Students Studying at Australian Universities

	Overseas Students Studying at				
	The University of Wollongong		All Australian Universities		
	1986	1992	1986	1992	1994
Full Fee Paying Students <sup>(a)</sup>	0	1,030	0	30,296	39,774
Australian Government-Sponsored Students <sup>(b)</sup>	692	209	16,782	9,194	6,667
Total	692	1,239	16,782	39,490	46,441

<sup>(a)</sup> Includes those students supported by family, friends, or an overseas government or company.

<sup>(b)</sup> Includes students sponsored by the Department of Education, Employment and Training (DEET), and by the Australian International Development Assistance Bureau (AIDAB).

**Source:** DEET, *Selected Higher Education Statistics*, Canberra, 1992, Table 12; and *ibid* 1994, Table 58, and the Planning and Marketing Department, University of Wollongong.

## 2. THE WOLLONGONG CASE STUDY

Overseas students inject significant expenditures into the national and regional economies. In a study by McKay and Lewis (1995), the average overseas student at the University of Wollongong surveyed in September 1992 was estimated to spend \$25,526 per annum. This estimate was derived from 413 returned student expenditure surveys for which disaggregated results are presented in Table 2. Note that 38% of all expenditure occurred in university fee payments alone. A more detailed expenditure breakdown is presented in Appendix 1. For example, five percent of student expenditures occurred in air travel, mainly international but also some domestic. Given there were 1239 overseas student at the University of Wollongong in 1992, using the per student expenditure of \$25,526 it was estimated these students spent in Australia a total of \$31.6 million in 1992.

A major proportion of the total overseas student expenditure of \$31.6 million was spent within the Wollongong economy, with remaining portions particularly occurring in Sydney. Estimating this was made possible because overseas students were asked to state their spending occurring within and outside of Wollongong in the expenditure survey. That which occurred within Wollongong for the average student was multiplied by the 1239 overseas students at the University to yield \$28.2 million. This could also be classified by ASIC<sup>1</sup> industry classifications, and is presented in Table 3. Note: the University, retail/wholesale and finance/property industries received most of the direct spending benefits from overseas students. The university total consisted of fees from overseas students. Note also that

<sup>1</sup> Australian Standard Industry Classification

accommodation is included in finance/property while airfares are included in transport.

The \$28.2 million spent in the Wollongong economy by overseas students generated wider income and employment benefits. These were estimated by applying table 3 to the Wollongong input/output (I/O) table. The Wollongong I/O Table was originally constructed by Mangan and Guest to analyse the regional consequences of the steelworks downturn in 1983, and has since had sector updates for other studies. This included updating sector coefficients with new industry survey data. For this study on overseas students, sector turnover and employment estimates were updated to 1992 levels. Further to this a new separate University Sector was constructed and incorporated into the Wollongong I/O table. This was considered necessary as the University received 43% of the \$28.2 million in total spending by overseas students that occurred within the Wollongong economy. From University financial data, a profile was constructed showing how the University on average would spend any revenue. This profile is presented in Table 4, and is derived from University of Wollongong income and expenditure data from 1992. Its incorporation into the I/O table provided a more accurate prediction of the flow on benefits to the Wollongong Economy from the University spending the fees of overseas students.

**Table 2.** Average Expenditure of an Overseas Student at the University of Wollongong Occurring Within Australia, 1992

Expenditure	Annual Spending (\$)
Accommodation	4,785
Food	3,491
Transport and Travel <sup>(b)</sup>	2,802
Personal Expenses	2,184
Communication	1,263
Education Expenses	1,185
Total Living and Entertainment Expenses	15,710
University Fees <sup>(a)</sup>	9,816
Total Student Expenditure	25,526

**Note:** Figures based on 413 questionnaires returned from overseas students studying at the University of Wollongong, September 1992.

<sup>(a)</sup> Average calculated from 1992 overseas student fee revenue obtained from the University of Wollongong, Finance Department.

<sup>(b)</sup> Includes airfares for travel within and outside of Australia, car expenses, trains, and buses.

Source: McKay, D. and Lewis, D. (1995), Table 2.

**Table 3.** Direct Overseas Student Expenditure in the Wollongong Region by ASIC Classifications for 1992

Sectors	Spending in Wollongong (\$000)
Agriculture	605.3*
Food Manufacture	1,299.3*
Textile/Clothing/Footwear	203.5*
Wood Manufacture	101.9*
Paper Manufacture	255.5*
Chemicals Manufacture	193.3*
Machinery Manufacture	479.2*
Electricity/Gas	534.0
Retail/Wholesale	5,609.8
Rail/Air Transport	396.7
Communication	1,253.8
Other Finance/Property	4,333.4
Public Administration	85.5
Entertainment/Recreation	674.2
University	12,162.5
Household	63.3
Total	28,251.2

**Note:** The table includes Wollongong expenditure of 1,239 overseas students.

- \* Sectors with retail margins reallocated. (Using the National Input Output tables catalogue S209, Table 4). Student expenditure in these sectors occurred through the retail/wholesale sector.

The \$28.2 million spent directly in Wollongong establishments induced them to expand output by employing additional labour and purchasing inputs from secondary establishments. These secondary establishments, in supplying the inputs to the University etc, in turn were required to replenish their stocks by purchasing inputs from third round establishments and so on. This is known as the industrial support effect. During this process the extra labour employed earned and spent additional incomes on goods and services which generated further expansion in output and employment. This is referred to as the consumption induced effect. These effects continued over several rounds but eventually dissipated due to leakages from the Wollongong economy in savings and imports. The totals from the two effects are shown in Table 5. They were obtained by applying the overseas student spending by industry from Table 3 to the Wollongong I/O table. This yielded for the Wollongong economy in 1992 a total output effect of \$58,282 thousand and 705 full time equivalent (FTE) jobs. On average, each student's expenditure in Wollongong generated \$47,040 in output and 0.57 FTE jobs.

**Table 4.** Average Expenditure Categories of University of Wollongong - 1991

Type of Expenditure	Percentage of Total
Banking/Finance/Property	2.4
Construction	5.0
Wood, Paper, Chemicals Manufacture	1.1
Transport Equipment/Other Machinery	1.9
Retail/Wholesale/Food/Entertainment	5.4
Electricity/Gas/Water/Communications	2.4
Wages	46.0
Imports <sup>(a)</sup>	28.1
Gross Operating Surplus	7.4
Other	0.3
Total	100.0

**Source:** University of Wollongong Finance department, Students Union, Sports Association, and Illawarra Technology Centre.

<sup>(a)</sup> University expenditure occurring outside the Wollongong Economy.

Table 6 presents the disaggregation by industry of the total multiplier effects from Table 5. Though not shown separately in Table 6, the retail/wholesale, finance and entertainment/recreation sectors all received a sizeable proportion of their total benefit in consumption induced effects. A major reason for this was that a large portion of overseas student fees (46%) were distributed to University employees in wages, which in turn were spent in these industries.

Apart from potential surveying errors, there are several economic reasons why the calculated overseas student impact results for Wollongong should be seen as an upper limit. Firstly, results are subject to the usual limitations of I/O analysis,

**Table 5.** Student Spending Impacts on the Wollongong Region, 1992 (\$000)

	Final Demand (Initial Spending)	Industry Flow On	Consumption Effect	Total	Multiplier <sup>(a)</sup>
Output	28,187	12,328	17,765	58,282	2.1
Income	8,808	2,746	4,225	15,776	1.8
Employment (FTE) <sup>(b)</sup>	340	144	220	705	2.1

<sup>(a)</sup> Total divided by final demand, commonly referred to as the type 2a multiplier.

<sup>(b)</sup> One FTE job equals 39 hours worked per week.

**Note:** Only expenditures injected into Wollongong industry sectors are counted in the final demand output effects. Overseas students spending on private households from Table 3 is excluded. This is why \$28,187,000 and not \$28,251,200 appears as the final demand output estimate.

**Table 6.** Total Overseas Student Impact on the Wollongong Economy by Sector for 1992

Sectors	Output (\$000)	Income (\$000)	Employment (FTE)
Agriculture	864	56	25.20
Mining	219	54	1.40
Manufacturing	5,888	875	51.00
Electricity/Gas/Water	2,247	337	8.80
Construction	1,117	177	32.10
Retail/Wholesale	15,857	4,433	195.00
Transport	1,451	430	26.70
Communication	2,681	1,074	24.60
Finance/Property	12,677	1,618	96.20
Community Services <sup>(a)</sup>	1,179	517	31.00
Entertainment/Recreation	1,742	524	56.70
University	12,360	5,681	156.60
Total	58,282	15,776	705.30

**Note:** Only total effects are presented, based on the type 2a multiplier.

<sup>(a)</sup> Community Services usually includes all education, but for this study the University of Wollongong has been excluded from it, and stated as a separate industry sector.

particularly in relation to assumptions of fixed input and productivity levels. Consequently increasing returns are not allowed for, which would otherwise permit proportionally greater increases in output relative to inputs. This could have led to exaggerated employment effects. Another reason why results may be over estimated is that as an economy grows from a spending stimulus, additional incomes earned will be subject to greater income tax, and less people will be eligible for welfare payments. Both factors will withdraw funds from the economic system. If this was allowed for, it would reduce the consumption induced component of the multiplier effects.

This case study of the impact of Wollongong overseas students can be extended to extrapolate the likely national expenditure effects of all overseas students studying in Australia. This of course requires an assumption that the level and pattern of the average overseas student spending in Wollongong is representative of overseas students studying elsewhere in Australia. If this were correct then the average Wollongong student's expenditure of \$25526, multiplied by the 39490 overseas students studying in Australia for 1992 would yield approximately \$1.008 billion in total spending.

This estimate of \$1.008 billion in direct expenditure would generate further output and employment benefits due to the multiplier effect. After calculating multipliers for the Wollongong economy it was found that each overseas student created 0.57 FTE jobs. If this figure was applied to the 39490 overseas students attending Australian Universities in 1992, then 22509 FTE jobs would have been generated. In 1994 there were 46441 overseas students which are estimated to have created 26471 FTE jobs. This is merely an indicative exercise as it assumes

that the Australian economy has the same technical structure as that of the Wollongong economy.

Given the limitation of I/O analysis as previously discussed, it can still be argued that the 0.57 FTE's generated by each overseas student in Wollongong may approximate that for the nation. On one hand this figure may be an over exaggeration as the expansion of demand in the Wollongong I/O table has failed to allow for negative feedback effects of rising wages, prices and interest rates, which would offset investment, output and employment. This would particularly be a factor at the national level. Alternatively this may be largely offset by the fact that national multipliers are greater than those for a regional economy such as Wollongong, because the later has greater import leakages. Similarly at the national level the total amount of student expenditure would be utilised to derive flow on effects. In the Wollongong case only the 88% of expenditure that occurred within the Wollongong region were applied. Given these offsetting factors, and in the absence of a national computable general equilibrium model to derive results, 0.57 FTE's created per student may be a reasonable benchmark. As a comparison, Love and McNicoll (1988) studying three Scottish Universities found each overseas student generated 0.66 FTE jobs on average.

### 3. GOVERNMENT SUPPORT

There are three important economic reasons for government policy to support the overseas student industry. Firstly, there are employment and income benefits from overseas student spending, as discussed above. This industry generates direct and indirect employment benefits that are welcomed in the current climate of high unemployment.

Secondly, the industry generates revenue directly available to Universities for their operations. This is and has been important in a climate of Federal Government fiscal constraint since the mid 1980's. To illustrate it's importance, in 1991/92 the University of Wollongong received \$12.1 million in overseas student fees, which contributed 12.4% of the Universities revenue for that year. According to DEET<sup>2</sup> guidelines, overseas student fees must be set above the average cost of the education service. In an industry commission report on exporting education services, DEET stated "*The guidelines require institutions to charge fees to overseas students at levels which reflect at least the full average cost of providing a place in a course*", and went on to comment that this includes teaching, research, administration, overheads, and capital facilities such as libraries (Industry Commission 1991, P:154). At the University of Wollongong in 1993 DEET funded Australian students on an average costing of \$9,797, while the average overseas student was charged \$10,706<sup>3</sup>. The fee margin above average costs per overseas student does not appear excessive, however it may be more significant

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<sup>2</sup> Department of Employment, Education and Training

<sup>3</sup> Planning and Marketing Department, University of Wollongong.

when fees are compared with marginal costs. The relevance of this, of course, depends on the level of excess capacity within the University.

The third benefit of this industry is to the Current Account Deficit, with overseas student expenditure in Australia contributing significantly to service exports. From the 1992 Wollongong study it was extrapolated that across Australia overseas students spent approximately \$1.008 billion. This amount can be regarded as service exports for Australia. As 30,296 of the 39,490 overseas students are full fee paying (refer Table 1), on a pro rata basis such students would have contributed \$774 million to total service exports, with an additional \$234 million contributed as service exports by the Australian funded overseas students. This later amount was foreign aid actually spent in Australia, and as such would be recorded as a service export in the current account, as well as a debit under unrequited Transfers. As a comparison, Sexton (1995) quoting Australian Bureau of Statistics data, estimated education export earnings in 1992/93 to be \$1.4 billion, while the Balance of Payments recorded the industry earning \$1.5 billion in 1993/94. Along with Elaborative Transformed Manufactures, service exports such as education have become an important growth area in Australia's exports, without which government fiscal and monetary constraint may have needed to be much tighter over the past decade. As a contrast to tertiary education exports estimated by this study at \$1.008 billion for 1992, \$3.8 billion was earned in wool and sheepskins, \$2.3 billion in cereal and grain, and \$0.7 billion in sugar and honey for 1991/92. The Current Account Deficit (CAD) for that year was \$11.3 billion<sup>4</sup>.

#### 4. OTHER COSTS/BENEFITS

Superficially there appears significant economic benefits from expanding overseas student enrolments, however this is not recommended without first considering other costs and benefits deriving from this industry. These include:

##### 4.1 Benefits

- \* Export income and employment as discussed above.
- \* Overseas students banking in Australia which aids domestic investment. Also additions to government revenue through their payment of sales tax on expenditure.
- \* If overseas students attain positions in business and government once returning home, then their familiarity with Australia, may benefit Australia's future trade and diplomatic relations with their countries. Similarly when Australian students move into business positions domestically, their past interaction with overseas students will prove an asset when they are assisting their businesses to break into new export markets, particularly in Asia. To the extent that

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<sup>4</sup> Data from 1992/93 and 93/94 Balance of Payments ABS Cat.5303.0 and 5363.0



Australian students become more at ease in interacting with different cultures, this can enhance racial tolerance towards migrant groups within Australia.

- Overseas students require additions to academic staff numbers *ceteris paribus*. This should create more variety in subject offerings for Australian students, than would otherwise have occurred. Additional academics will also produce additional research output, which in particular may aid Australian industry.

#### 4.2 Costs

- If Universities operate at above full capacity due to enrolling overseas students, the Australian students will have reduced access to facilities. ie libraries, computers, academic consultation, crowded lecture theatres etc.
- If Universities invest too extensively in facilities for overseas students, and then overseas demand for their degrees falls, they may be then left with high interest repayments and reduced revenue sources. The initial resources utilised for such facilities, could have been used for health, transport etc, and therefore have a real opportunity cost.
- If Universities accept overseas students of low academic standard and poor English skills, then they will place greater demands on academics' time. This may take the form of longer consultation times, or basic literacy corrections in a student's thesis etc. This can reduce morale for academics, and take them away from research work.
- The proliferation of overseas students in a given suburb (eg close to university) may put upward pressure on rents, which would disadvantage Australian residents who are renting in that area.
- Overseas students may be utilising public services at subsidised rates. eg Public transport and education for their children. Note, this is not the case with health where they are expected to take out private health insurance.
- Too many overseas students as a percentage of the total university student body may increase racial tensions. This may generate bad publicity for Australia when they return home, potentially causing adverse future trade and diplomatic outcomes.
- Overseas students absorb local jobs that could otherwise have employed Australians. In the Wollongong study the average overseas student was found to work 1.15 hours per week in Wollongong. The total 1239 overseas students were estimated to absorb 36.5 FTE jobs relative to the 705 FTE jobs they created.
- If Australian Universities' reputations are damaged, due to them lowering standards to attract more overseas students, then this will also devalue degrees earned by Australian students.

Many of these benefits and costs are discussed in more detail by Williams (1989) and Harris and Jarrett (1990).

## 5. POLICY IMPLICATIONS

The sale of tertiary education exports, particularly to the Asian region, appears to be an area in which Australia presently has a comparative advantage. A DEET report (1994) into the competitiveness of Australian education exports relative to New Zealand, Canada, the UK and USA, found Australia to be competitive in terms of fees, quality of courses, living costs etc. It found we have a particular comparative advantage in offering students fixed fees for their course duration. Informal discussions with overseas students at the University of Wollongong provided various reasons as to why they chose Australia for their tertiary studies rather than North America, Europe etc. These included proximity to Asia, english speaking country, climate, safety, advertising, fees, and international standing.

Though Australia presently may have a comparative advantage in exporting education, there are factors that potentially threaten to erode this advantage. Unfortunately, it appears that some full fee paying overseas students are leaving Australia unsatisfied with their experience in Australian Universities. Baker (1993) asserts that the feedback overseas students give family and friends once they return home, will influence future sales of education exports, more so than our own marketing. He argued that many students felt Australian Universities falsely advertise and over exaggerate their services, with students particularly concerned with the lack of remedial help provided in our universities. Many students who completed the Wollongong expenditure survey also stated these concerns. Of the 346 full fee paying students in the survey, 55% said the service and facilities provided by the University was average, while 17.4% said it was good to very good, and 27.6% stated it was bad to very bad.

This dissatisfaction, combined with any perceptions overseas that the reputation of our tertiary qualifications have been devalued by falling academic standards, threaten the sustainability of this industry. Though the issue of falling academic standards being linked to exporting education has yet to be established, there is disquiet among some academics who believe standards have been compromised in the pursuit of overseas student revenue. This disquiet was presented to the public on the Channel 9 "Sunday" program entitled "*Degrees for Sale*" on 25 June, 1995. It presented the case of academic whistle blowers in Wollongong and Perth who were concerned with this issue of academic standards and education exports. Similarly concerns surrounded the proposal for an International MBA at Newcastle University in the same year. Baldwin (1994) writes, "*it is interesting that Australian universities are being accused by some potential customers from Asian countries of compromising their education principles in the push for profit*", p. 130. Nicholls (1993) from the Academics Union (NTEU), agrees that some of the concern among academics stems from the fact that they had little input into initial management decisions to pursue full fee paying overseas students. She points out that such students can face particular difficulties due to their poor written and oral english language abilities, and due to their cultural upbringing often being inconsistent with western teaching styles. She

believes that Australian academics are too often poorly resourced and trained in dealing with the special needs that many overseas students possess.

It must be said at this point that there are other academics who feel that the move from the binary to the unitary education system in Australia, is a factor in falling standards in recent times, if not the major factor. Alternatively, some academics question the thesis of falling standards and suggest that the market pressures involved in selling education, has in fact forced standards up to internationally recognised levels. Of course this assumes institutions are thinking of the longer term viability of the industry, and not short term economic rents. What ever is the true situation, the problem is that too little research has been conducted to analyse whether academic standards have been effected by the pursuit of education exports.

There are though still good reasons to be concerned about the real temptation Universities face that may possibly lead them to compromise standards. Firstly Universities have been forced to pursue alternate forms of revenue, due to shortfalls created by the reductions in government funding per Australian student. Overseas students are an important supplement in this regard, and therefore there is a commercial motive to retain them and consequently their tuition fees for the duration of a degree. On strictly financial grounds there is no incentive to push them out of the University prematurely by failing them. If one assumes such students on average have difficulty coping with existing academic expectations, then there appears two alternatives to ensure their continued patronage. Firstly, standards can be lowered allowing them to pass, or they can be given additional assistance (remedial help etc), to bring them up to passing at the existing academic standards. To the extent that standards impact on the reputation of the tertiary sector, the later will sustain this industry in the long run while the former will jeopardise it. In an article by Smith (1995), she quoted Ms Marjoree Sehu, the spokesperson for international students reporting to the International Education Conference, Brisbane in 1995. Ms Sehu argued that "*the over riding concern for the export of Australian Education was quality, and ensuring Australian education had practical application anywhere in the world*", p. 2.

As the benefits of this industry in terms of regional employment and national exports extend far beyond the fee benefits to universities, the government has a responsibility to monitor academic standards and the treatment of overseas students in Australia's universities. It should investigate the validity of concerns over standards, and encourage programs that assist overseas students to excel academically. Such programs could include the provision of more remedial tutors, remedial textbooks or computer programs specific to their cultural needs, and further staff development for academics to better equip them in the teaching of overseas students. It may be that the additional educational resources can be financed by profit margins on existing overseas student fees, or if not, it may require an increase in fees charged. In the future many of the home countries of our overseas students will be expanding their own university sectors. In such a climate, the maintenance of internationally respected tertiary qualifications and

the satisfaction of overseas students will become essential if Australia is to maintain a competitive edge in education exports. This point was noted by Baker (1993), who argued that academic quality and reputation would be important in Australia differentiating its education product against new overseas entrants into the tertiary education market. The significant employment and export benefits noted in this paper will be unsustainable if the reputation of our university system is tarnished or if present students are dissatisfied with services provided by our universities, which will manifest into bad publicity once they return to their own country.

Finally, in recent times Australian Universities have been establishing offshore campuses (eg Malaysia). The impact of this on attracting overseas students to Australia in the future is of concern. One argument is that the offshore campuses enrol from a separate student market, which would not have come to Australia for a full degree duration anyway. In fact, to the extent that such students could be locked into finishing the last year or two of their degree in Australia, it may actually expand student numbers coming to Australia. However if offshore campuses detract from the existing market of overseas students based in Australia, then the employment and export benefits identified in this paper will be jeopardised. In the research by Nicholls (1994), from her trips to overseas campuses, she expressed concern that such establishments lacked the standards of the parent Australian university. If this concern was justified then it could conceivably devalue an Australian tertiary qualification in general, again threatening the sustainability of the industry in Australia. Subsequently the Federal Government should be vigilant of this new marketing technique of our universities.

## **6. CONCLUSION**

This paper has identified notable employment, income and trade benefits from overseas students, which would be enhanced by increasing overseas student enrolments. However it also argued that this industry is not without its opportunity cost. Before policy is adopted to dramatically expand enrolments, a cost benefit analysis is required which addresses, among other areas, the concerns mentioned in this paper. If it is found that costs outweigh benefits then a reappraisal of enrolments and/or the levels of student fees charged will need to occur. Alternatively if benefits are greater, than Australia has the potential to develop this industry further, one in which it appears presently to have comparative advantage. However, part of Australia's comparative advantage is the international standing of its qualifications. This may be more important in the long run in attracting overseas students, than the level of fees charged. As such, the federal government should monitor the industry to ensure that standards are maintained, along with the satisfaction of overseas students towards the service universities provide. Such Government involvement is justified, as the benefits of this industry extend far beyond the bank accounts of Australian Universities.

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## PRIMARY SOURCES

Statistics relating to the University of Wollongong were collated from the Departments of Planning and Marketing and Finance, University of Wollongong.

**Appendix 1.** Average expenditure by overseas students at the University of Wollongong, 1992.

	Yearly (\$)	Weekly (\$)		Yearly (\$)	Weekly (\$)
<i>Accommodation</i>			<i>Communication/Other Services</i>		
Rent	3,309.50	69.01	Communications	1,128.52	23.53
Electricity	434.88	9.07	Bank Charges	23.63	0.49
Gas	31.82	0.66	Financial Services	110.99	2.31
Furniture	175.56	3.66	<i>Sub Total</i>	<i>1,263.14</i>	<i>26.34</i>
Kitchen Utilities	62.17	1.30	<i>Personal Expenses</i>		
Electric Equip.	770.97	16.08	Health	253.56	5.29
<i>Sub Total</i>	<i>4,784.90</i>	<i>99.77</i>	Clothing	398.96	8.32
<i>Food</i>			Toiletries	357.63	7.46
Meat and Milk	856.48	17.86	Gifts	244.67	4.68
Groceries	1,787.92	37.28	Videos	112.65	2.35
Fast Food	846.76	17.66	Entertainment	717.52	14.96
<i>Sub Total</i>	<i>3,491.16</i>	<i>72.79</i>	Sports Equipment	76.90	1.60
<i>Transport/Travel</i>			Club Membershp	42.40	0.88
Car Purchase	217.46	4.53	<i>Sub Total</i>	<i>2,184.29</i>	<i>45.54</i>
Car Registration	82.10	1.71	<i>Educational Expenses</i>		
Car Insurance	164.90	3.44	Text Books	396.75	8.27
Car Maintenance	163.71	3.41	Stationery	360.79	7.52
Petrol	258.36	5.39	Photocopying	328.77	6.86
Airline	1,267.51	26.43	Tutoring	60.95	1.27
Travel	428.95	8.94	Child Education	37.85	0.79
Holidays	218.41	4.55	<i>Sub Total</i>	<i>1,185.11</i>	<i>24.71</i>
<i>Sub Total</i>	<i>2,801.40</i>	<i>58.41</i>	<i>Total Living Expenses</i>	<i>15,710.00</i>	<i>327.56</i>
			<i>Student Fees</i>	<i>9,816.38</i>	<i>204.68</i>
			<i>Total Expenditure</i>	<i>25,526.38</i>	<i>532.24</i>

**Note:** Weekly Spending based on students' spending 47.96 weeks in Australia (Results from 413 surveys returned).

**Source:** McKay, D. and Lewis, D. (1993), Table 2.