

A TEST OF THE ROLE OF UNIVERSITIES IN REGIONAL DEVELOPMENT: THE CASE OF INTERNATIONAL EDUCATION STUDENTS IN THE NORTHERN TERRITORY

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Abstract: There is some controversy in Australia over the role of regional universities in the economic development of their regions. This paper assumes that regional universities can be valuable additions to regional development. To avoid the Grattan ‘taxpayer-money-recycled’ critiques, this paper examines students who provide other people’s money, notably international education students in the Northern Territory (NT) of Australia. The case is made that international education exports are a valuable part of the suite of the NT’s exports. It is posited that over the next decade the Territory’s international education exports can triple and the sector become the Territory’s fifth largest exporter and the second largest services exporter.

KEY WORDS: Regional development, Northern Territory, Regional Universities, International students.

1. INTRODUCTION

The involvement of universities in regional development is a gathering international trend. Leading this development has been the United States, where many universities have a long history of community engagement, particularly those established under the Morrill Land Grant Acts of 1862 and 1890 (Harloe and Perry, 2004). Regional economic development is becoming core business for many American universities (Goldstein, 2010). Europe has followed, seeing contributions to regional development as being intrinsic to universities’ community engagement (cf. Thanki, 1999; Franklin, 2009; Glasson, 2003). Australia has seen some emphasis on the community engagement of universities (Garlick and Pryor, 2002) but little interest in their role in regional development. This paper takes one aspect, international

education, of one university, Charles Darwin University in the Northern Territory (NT), to argue that regional universities can have a positive regional development impact.

CDU was constructed in 2004 out of various institutions, plus the faltering Northern Territory University (Berzins and Loveday (1999)). The university is one of only two universities in Australia which is the sole university within an Australian state or territory, which makes managing its statistical effects simpler relative to universities in other states. The only other sole jurisdictional institution is the University of Tasmania. All other states (and the ACT) have multiple universities. Like the University of Tasmania, CDU has a formal partnership with its territorial government (CDU's governmental partnership arrangements were originally modelled on those of Tasmania). However, CDU is a dual-sector university, incorporating Vocational Education and Training (VET) as well as Higher Education (HE). These factors make it a uniquely useful institution in terms of measuring its regional economic impact.

This paper was prompted by two papers from the Grattan Institute (Daley and Lancy, 2011: p.30ff; Daley, 2012). They argued, *inter alia*, that many regional programs (i.e. regional universities) were in effect subsidies and thus could not be justified on economic but only on equity or social grounds. There is a significant international literature that universities have considerable impacts on their local economies (Goldstein and Renault, 2004; Bowen, 2007; Bramwell and Wolfe, 2008; Bagchi-Sen and Lawton Smith, 2012). Crase *et al.* (2011) provide a methodological critique of the Grattan papers. Nevertheless, I acknowledge the logic of Daley and Lancy's general point – essentially an argument against horizontal fiscal equalisation - but disagree with them about the particular case of regional universities. In effect this paper contraposes their 'using Australian taxpayers money' argument with a 'using other people's (i.e. foreigners) money' case, focusing upon the revenues garnered from international education. Nonetheless this paper is not an evaluation of the general regional economic development role of universities. It merely proposes that their role in garnering export income qualifies the Grattan critique.

Using Australian taxpayers' money to establish regional universities might facilitate the conditions where substantial exports of their services (i.e. via revenue from international students) would/could be created by those regional investments. This is not to enter into the myriad of other arguments

about whether regional universities are more expensive per student, might retain trained people in regional areas, boost productivity or reduce transaction costs. The Grattan case is strong in some regards and would need a rebuttal not provided here. The Regional Universities Network has provided alternative data (RUN, 2012) without addressing the taxpayer's money or relative efficiency issues (see Brett *et al.* (2015) for a further discussion).

2. METHODOLOGY

This investigation into the economic value of international education and training to the Northern Territory follows an earlier report from the Centre of Full Employment and Equity at the University of Wollongong (Flanagan and Mitchell, 2014). This determined that international education netted \$43 million to the NT economy in 2012, making it at that time the Territory's eleventh biggest export earner. It employed the single case study methodology (cf. Drucker and Goldstein, 2007) replicated here. The present exercise used new data to estimate that in 2014 international education exports earned over \$51 million to the NT economy (cf. Table 1 below). Difficulties in securing the data – especially with regard to people doing non-award courses not being registered on the student visa system - means that this estimate is slightly conservative, although the same as the ABS figures for 2014. The methodology (and its omissions) here employed is briefly outlined in the Appendix (below).

The definition of the international education export sector is broader than just the conventional 'overseas students enrolled in HE or VET institutions' (cf. Australian Government 2015). The sector includes school students, working holiday visa students, short course and externally-taught students. In addition the local expenditure of visiting families and friends (VFRs) must be counted as a contribution from the international education sector. This latter expenditure can be calculated using orthodox tourism industry multipliers, except that a discount would need to be made for that proportion of the VFR group that uses private (friends, relatives) accommodation rather than motels and hotels. It is estimated by industry sources that a third of VFRs used local private accommodation.

3. OVERVIEW OF INTERNATIONAL EDUCATION

This sector of the Territory's exports is important and will grow further in importance, both absolutely and relative to the other NT export industries. So the international education sector is a promising industry for the NT. It has the added advantage of growing in a stable and planned manner. This means that it is not subject to the booms and busts of the resource extraction industries and so provides a more predictable contribution to the NT economy in the long term. It also avoids the seasonal peaks and troughs of tourism, the NT's largest services industry, which means more efficient utilisation of capital and the potential for a better trained labour force.

Before calculating the direct value of the NT's international education exports, a brief background is provided on the state of play in the international and national environments of the international education export industry.

The International Education Industry

The international education industry comprises different elements. The most visible are the HE (university) and the VET students. But also part of this export sector is the schools, English language instruction (ELICOS) and non-award courses. ELICOS and non-award students (this latter category including people on study tours) are statistically problematic, as these students might enter Australia using a tourist or working holiday visa. So they are hard to identify in official statistics. The international education sector also includes the economic contribution of visiting friends and relatives (VFRs), who come to the Australia to visit students here and may stay for a period as tourists. Calculating the economic contribution of this group is complicated by the facts that the reason for their visit may not be identified in the immigration statistics and that some of them might stay with friends or relatives and thus not make the standard economic contribution of a tourist using commercial accommodation and hospitality facilities.

Consequently different methodologies are required to calculate the economic impact of each of these categories within the international education sector.

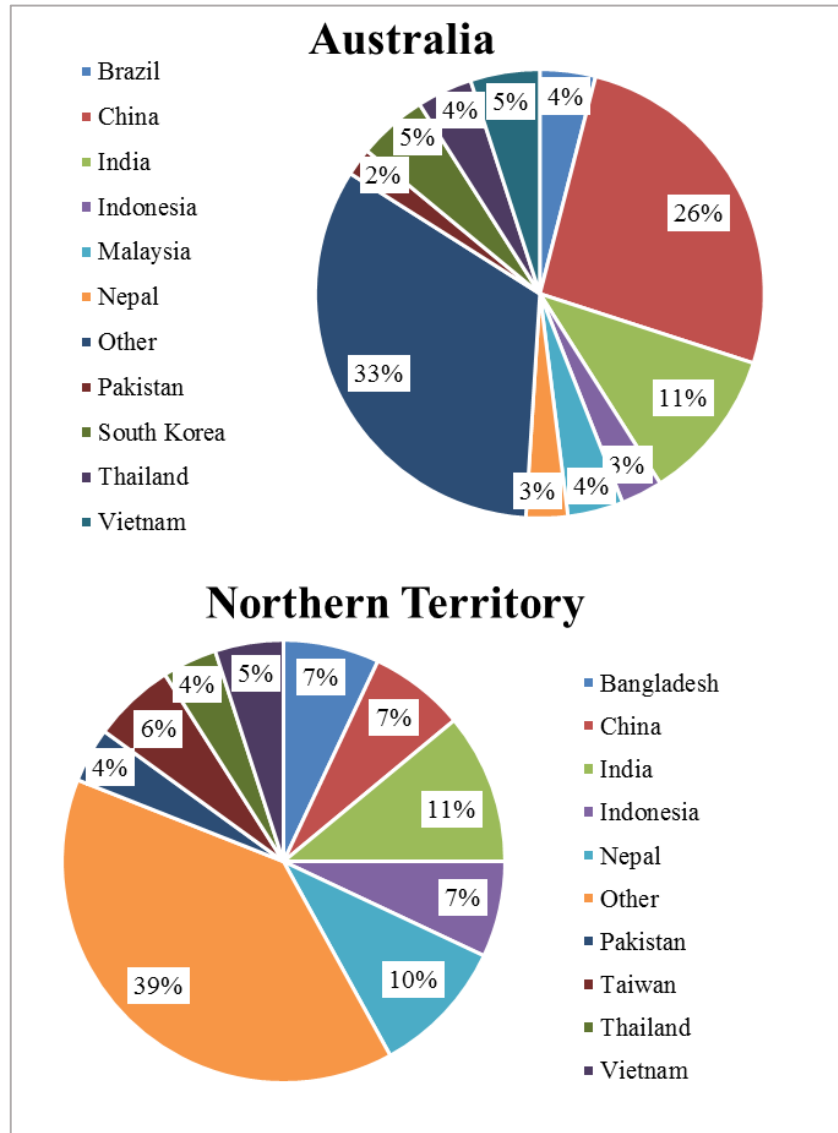
The Larger Context

Worldwide, between 2000 and 2012, the number of students that studied outside their home country grew at an annualised rate of seven per cent. By 2012 there were 4.5 million such students. Australia's involvement in the industry started more than half a century ago with the Colombo Plan. Since then the international education has shifted from an overseas aid-based activity to an industry (Meadows, 2011). Between 2002 and 2012 Australia maintained its position as the fifth largest provider of HE services and increased its market share from 5.1 per cent of the global total to 5.5 per cent (OECD, 2014). The Australian international education industry was worth over \$17.6 billion in 2014 (DET, 2015a). It was then Australia's largest services export earner and fourth largest exporter overall, behind iron ore, coal and gold. Notwithstanding a dip between 2010 and 2013 the industry is growing strongly. In addition to earning export revenues Australia's international education sector helps in establishing closer long term social and economic ties with other countries, particularly those in South, Southeast and East Asia.

4. THE NT EXPERIENCE

The NT is a late-comer to the international education market only entering it in 1999. Until 2009 its international student load increased very slowly. Between 2009 and 2013 the increase was large and in the last two years dramatic, with very strong growth in HE and Intensive English (ELICOS) students (ref. Figure 2 below). The VET and non-award sectors have grown more slowly. This HE growth was facilitated by a large expansion of accommodation suitable for students. CDU has also opened a stand-alone campus in Sydney and a joint operation with a private provider in Melbourne. In 2014 the enrolments at these two centres accounted for about 34 per cent of CDU's international HE students. They were all HE students. The significance of this development will be expanded upon later.

The University's late entry into international education may be a factor in its unusual student profile when compared with Australia as a whole as figure 1 below indicates.



Source: Australian Education International.

Figure 1. International students' country of origin.

The NT's share of Indian students is mostly based in Melbourne and the Nepalese are predominantly at CDU's Sydney campus. Removing these cohorts makes the NT's resident international student market quite distinct from the national pattern. Especially in the small numbers of Chinese students, who constitute over 28 per cent of Australia's international students but only seven per cent of CDU's international student numbers.

Nevertheless the NT's international student profile is robust. It mostly draws students from countries – such as the Philippines, Nepal, Thailand, Vietnam, etc. – that have education institutions that will not soon challenge Australia for the international student market (De Jager and Soontiens, 2015). Nevertheless, such countries are producing (albeit more slowly than China and India) an aspirational middle class that will be prepared to invest in an international education for their children. In this situation Australia's proximity is an advantage, particularly if the students' family and friends intend to visit during the student's stay.

International Education Compared with other Northern Territory Exports

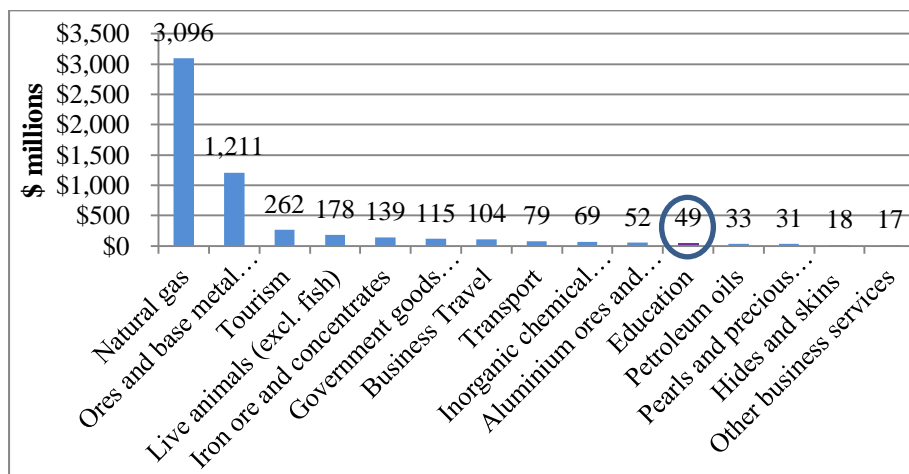
As noted above, the NT Government is keen to grow the Territory's international education exports. ABS figures show that in 2014 international education was the NT's eleventh largest export industry (cf. Figure 2 below). Since then the Territory's iron ore industry has closed, the victim of a cost-squeeze caused by international prices falling by over \$120 per tonne since 2013.

The NT Government wants the international education sector to become one of the Territory's top five export earning industries within the next decade (International Education Taskforce, 2014). That would place it behind the (soon to be even more dominant) natural gas industry as well as base metals, tourism and live animal exports. It would more closely reflect the national position, where international education is the largest service sector export and, in 2015, even became the third largest export sector overall (after iron ore and coal). Achieving similar growth may be possible for the Territory. There are sound reasons for this optimism.

Firstly, it is likely that HE exports will continue to grow strongly. This point is elaborated on below in the case study how HE on its own (with some help from ELICOS growth) could virtually achieve the NT Government's

ambitions for this sector's growth. Secondly it seems that the VET sector may soon begin expanding. This is consequential upon the simplification of the student visa process which will apply from July 2016 and the end of the reputational threat demonstrated by on-going private VET provider scandals.

The new visa process (DIBP, 2015) will be important for VET, which recently has not achieved anywhere near the growth of HE or ELICOS (cf. Figure 2 below). The Commonwealth's Department of Education and Training's data shows that, nationally, 30 per cent of ELICOS students transition to HE and 25 per cent to VET. These sectors interact; many students will do both ELICOS and another qualification and may do ELICOS after VET as part of transitioning to HE.



Sources: NT Department of Business (from Australian Bureau of Statistics, DFAT).

Figure 2. The Northern Territory's Top 15 Export Sectors (2014).

The NT Government expects the international education sector to achieve endogenous growth. The NT educational sector could achieve solid growth but be exceeded by a single large resource project which could bring in billions of dollars of investment and earn tens if not hundreds of millions of dollars of revenue. This becomes a question of what indices to take seriously. International education revenue is mostly spent and creates jobs in the

Territory. After the construction phase, large resource extraction projects may be capital-intensive and thus low on local employment outcomes. In addition a substantial proportion of the tax revenue they generate goes to the Commonwealth via company tax (and resource rental taxes in the case of off-shore LNG).

The International Student Recruitment Process

The decision-making process for the pursuit of international education features three sets of factors: the quality of the program/experience; the university's image and reputation and personal factors (Cubillo *et al.*, 2006). The latter factors involve issues such as the country's and the city's image and the experiences of family and acquaintances. The last factor is largely beyond the control of education providers. There is also another factor for students from 'developing' nations: the possibility of emigration (Bashir, 2007, Jackling, 2007). The importance of that factor was seen in the recent past when the Commonwealth Government tightened immigration rules and international student demand, especially in VET, immediately fell (Bashir, 2007). In this case the rise of the Australian dollar after the GFC may also have had an adverse effect. Between 2011 and 2012 the number of international students dropped by 7.2 per cent as the Australian dollar reached parity with the US dollar. This coincided with a temporary slump in Indian students as a result of the violent deaths in Melbourne of some Indian students and the publicity this received in India. VET enrolments also declined in these years, though that may have been affected by the concurrent exposure of some sharp practices amongst some private providers.

Australian International Education has two major assets: the provision of high quality education in English and the immigration advantage (Productivity Commission 2015: p. 194). Australian international education providers benefit from the possibility of their students obtaining permanent residence and eventual citizenship in an advanced democracy. Australia also have two other, minor, advantages: secure regulation and advanced services, though these are shared with its main competitors, the United States, the UK, Canada, Germany and France. Australian international education services have a further, at present latent, advantage: its universities are highly

productive in global terms (Deloitte, 2014: Fig. 42, p.88). That means they are well placed to weather future market fluctuations.

The provision of international education by NT providers largely shares these national advantages. Nonetheless the NT has some comparative disadvantages nationally. It is widely believed in the industry that international students, all things being equal, prefer large cities and their more prestigious universities (cf. Norton and Cherastidtham, 2015a, Larkins and Marshman, 2016) because these offer amenities, part-time employment and an environment they find attractive. Darwin, as a small high-cost city could suffer by such comparison, although the part-time and casual employment opportunities are good (Manicaros, 2016).

Regulatory Environment

The larger regulatory environment also affects international student enrolment. For example, Simplified Visa Processing (SVP) supposedly produced a 19 per cent increase in HE visa applications (CIE, 2014). Universities Australia (2014) also saw the SVP system as attractive for international students, although with some risk of inappropriate applicants (DIBP, 2015).

Risks

The recent Productivity Commission report on barriers to service exports (Productivity Commission, 2015) focused upon the risk that SVP would encourage students into HE even if it were more beneficial to them to do a VET course (Productivity Commission, 2015: 201). The Commission was also concerned with reputational risks to the system, such as with unscrupulous agents and inadequate educational or training provision for the supposed qualifications. In the past decade we have seen these problems revealed repeatedly. Anomalous operations by private VET providers seem currently endemic (Loussikian, 2016a, 2016b, Bitá, 2016). Another risk is posed by Australian international education providers using overseas agents to secure students.

5. INTERNATIONAL EDUCATION'S CONTRIBUTION TO THE NORTHERN TERRITORY ECONOMY IN 2014

At present international education is the tenth-largest export sector of the NT's economy (cf. Figure 2). Properly managed this industry can realise the NT Government's ambition for its value to the NT to triple over the coming decade. The *direct* economic impact of the international education sector can be estimated through the value-added from the expenditure of the international students, the income earned from international education activities not officially documented (estimated below), and the employment demand created from those two streams of income.

The Challenges of the Data

Data used here derives from several sources – the ABS, Australian Education International, the NT Government and Tourism Research Australia. There are several challenges in obtaining data that provides a complete picture of international education in the NT. The official data only captures student visa holders. Over 135 000 people who entered Australia in 2014 marked on their entry documents the purpose of their stay as education. But they were not on a student visa. Working holiday visas and short term study tours were not captured. The proposed changes to student visas (reducing their number from eight types to two) might improve the inclusion of these international education consumers into official education data.

ABS statistics about students are presented by institution and not by campus. Yet whether the student is studying at the Darwin campus or CDU's Sydney or Melbourne campuses has a significant bearing on that student's value to the NT economy. This has implications returned to below. In addition visa information is very poor for ascertaining the number of international students in NT schools. Students (particularly primary schools students) may pay fees but are in the Territory on their parents' visas. So Immigration does not record them as an international student. Potentially this may mean that there are many more international students in NT schools than reported in AEI data. In addition there are an array of short-term study programs – run by government agencies such as the NT Museum, the hospital's National Trauma Centre and NT Emergency Services - that benefit

the NT economy. There are several other institutions delivering international education that are not included in the data that makes up the calculations, in Table 1 below, on the value of international education to the NT. All these short term projects bring people into the NT but none are counted in official student data. While the direct economic value of these types of programs may not be great, in terms of the calculation of a \$51 million plus benefit to the NT economy from international education, they are significant and exhibit a potential to export NT expertise and training.

The NT Government's data on government schools is used here. These figures do not show how many fee-paying international students there are at non-government schools. The number would be small – and mostly in secondary schools - but it would act to increase the economic value of international education. As canvassed elsewhere, it is possible that the official estimates for school students is under-estimated if they are on parental visas and so not registered with Immigration and AEI. So by whatever amount this shortfall involves, the calculations in this paper under-estimates the total value to the economy of Territory schools' international education exports.

6. THE VALUE TO THE NT ECONOMY OF THE INTERNATIONAL EDUCATION SECTOR IN 2014

Essentially the direct economic contribution of the international education export sector to the NT economy is the product of the value-added that the sector's students create and the consequent increase in the demand for labour. This standard methodology uses accepted industry multipliers. The total contribution is calculated to be \$40.9 million in value-added to the economy. This expenditure created in 2014 over five hundred full-time-equivalent jobs in the NT (cf. Table 1 below).

Table 1. The Value of International Education to the NT in 2014.

	Economic Contribution (\$ mill.)	Value Added (\$ mill.)	Employment (FTE)
Higher Ed.	40.915	32.322	421
VET	4.933	3.847	50
Schools	2.18	1.744	22
ELICOS	2.229	1.782	23
Non-Award	1.224	1.02	14
Totals	51.481	40.715	530

Source: the Author's calculations.

Standard industry multipliers were used to produce Table 1 (see the Appendix below for an outline of the methodology). With one exception; calculations of the effect of family visitors and friends were included in both Table 1 and Table 2 (see Appendix). The calculations presented in Table 1 have the caveats noted above. Suffice it to say that the HE sector has the largest impact on the economy. This point is germane to the model, presented below, of rapidly expanding the HE sector as the quickest means to achieve export growth in international education exports.

7. THE SECTORS RECEIVING THE MOST SIGNIFICANT POSITIVE IMPACTS FROM INTERNATIONAL STUDENTS

International students directly benefit the Northern Territory economy. Calculations of that effect indicate that in 2014 the industry contributed over \$51 million to that economy. This is primarily to the benefit of the delivering institutions as well as to the retail and other sectors. However, most sectors of the NT's services economy benefit from the expenditure of international students, as demonstrated by the calculations shown in Table 2 below:

Similarly the small number of off-shore/transnational students (about 10 per cent of the total) provide tuition fees for their courses. These have been treated as 100 per cent realised to the NT economy. However, their local

expenditure is minimal and probably confined to a proportion of them coming to Darwin for their graduation. There is no data for this and it is not included in the VFR category in Table 1 above.

Table 2. International Student Expenditure by Industry, 2014 (\$, 000).

<u>Industry</u>	<u>Higher Ed.</u>	<u>VET</u>	<u>Schools</u>	<u>Elicos</u>	<u>Non-Award</u>
Utilities	123	19.5		5.3	3.4
Retail	7 884.00	1 183.00	228.3	394.5	179.2
Accom. & Food	11 420	1 671.50	217.8	536.5	252.9
Transport, Postal	2,577	398	69.2	115.5	60.1
ITC	660	104.8	66.5	30.7	15.9
Financial Services	366	58.4	50.1	16.9	9.1
Rental, Hiring & Real Estate	56	8.64		2.1	1.1
Admin & Support	94	15.1		4.20	2.3
Educ & Training	17 192	1 387.00	1 449	1,098.60	706.6
<u>Arts & Rec.</u>	<u>543</u>	<u>87.6</u>	<u>100.2</u>	<u>25.4</u>	<u>13.6</u>
Grand Total					
51 5034					

Source: the Author's calculations

8. GROWING THE ECONOMIC IMPACT OF INTERNATIONAL EDUCATION EXPORTS ON THE NT ECONOMY FOR THE PERIOD FROM 2014 TO 2024

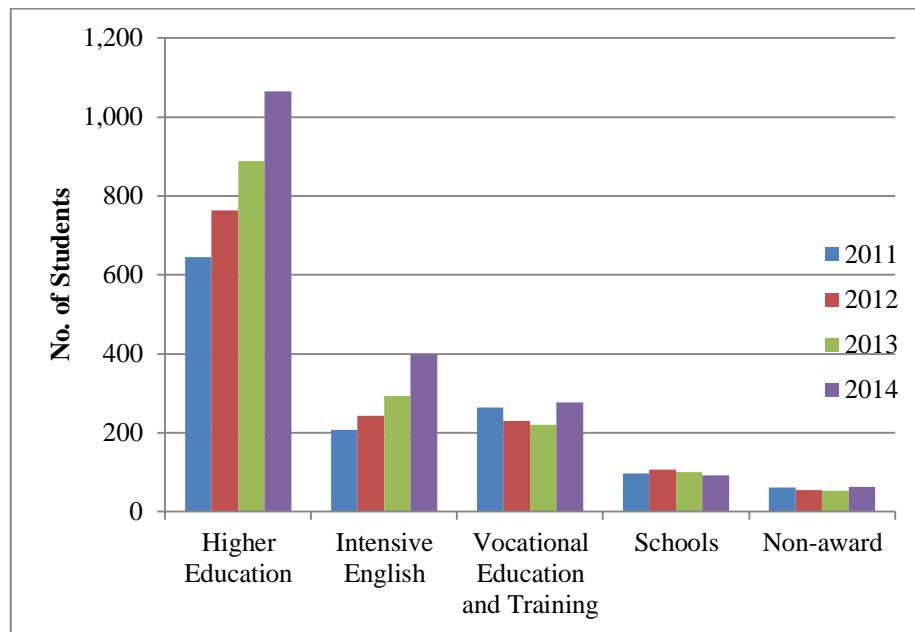
This is a tricky exercise. The future is not known, which means that projections have to have explicit assumptions. Any future variation from these predictions should then be easily explained. Some variables, such as the price of the Australian dollar are clearly outside the NTG's control. On others, such as the regulatory regime run by the Federal Government, the NT is such a minnow that it can only have limited impact on national policy. Additionally there are issues that are strategic for Charles Darwin University as well as for the NTG.

The Sydney/Melbourne Problem

It is natural to assume that past growth patterns will be replicated in the future. Thus the NT Government assumes that international student numbers would have to increase to 4 500 (about three times the current level) to reach its international education export target of \$150 million (in current dollars) in 2024. But achieving the export income target is as much about *where* the numbers increase – in Darwin, rather than on the Sydney or Melbourne campuses of CDU. This affects the number of students needed to achieve that result, as does the fees they are charged. If tripling the economic impact on the NT of international education is the target, then expansion in Darwin is best. If simply tripling the number of students attributed to the NT is the goal, then expansion in the non-NT campuses of CDU could achieve the objective. However, here the NT economy receives the full benefit of the students' fees, expenditure and labour supply (although the last is not calculated).

The Context of International Education Export Growth

We can see from Figure 3, that in recent years the number of NT HE students has grown rapidly. As noted above, the figures for HE do not distinguish between campuses. For HE these are CDU figures, not NT figures. There may also be international students residing in the NT but pursuing HE through universities other than CDU. These students would be counted in the figures for their institutions in other states, despite their consumption of local goods and services in the NT. This reinforces the claim that the calculations in this report are conservative.



Source: Australian Education International.

Figure 3. NT International education student numbers by sector.

Here we need to consider what assumptions are relevant and to then produce figures for the effects of those assumptions. A set of figures will be nominated that will be within a plausible, conservative, range. There are two sets of factors that will influence the growth of international education in the NT economy: structural and economic.

Structural Factors

We have to consider international education exports within a larger context.

The longer term future

Let us examine (a modified version of) the orthodox interpretation of how international education moves through defined phases (McBurnie and Ziguras, 2007) and how that might impact the NT's providers.

- Demand for tertiary education exceeds local supply and students go abroad to university. This is the current phase for CDU's recruitment of international students, though there probably is a migration motive.
- Local capacity expands and student mobility reduces (international providers set up campuses in host countries). At present there is no evidence for most of the NT's student-supplying countries that students are being diverted from overseas travel by expanded local capacity. Australia has a small number of universities and so competition to CDU from Australian universities' overseas campuses does not hinder CDU. It is uncertain that overseas campuses are profitable and several have closed in the last decade.
- Local capacity expands and local universities try to attract international students. This is currently the Chinese strategy (Loussikan, 2015; Zhang and Tobias, 2015), which is using scholarships to attract foreign students, mainly from Africa, Indo-China and the Middle East (China did this for a time in the 1960s before the Cultural Revolution). Because an education in English has a premium, such developments will not threaten the international student market for the NT/CDU within the next decade. The migration factor augments that conclusion. So these possibilities are not factored into these calculations.

Economic Factors

Deloitte (2015: p.35) expects international education to grow by 7 per cent between now and 2020. This is the historical average growth figure. They predict that income will grow at 3.9 per cent pa (Deloitte 2015: Fig. 8, p.11). So they incorporate a small rise in real income per student (assuming that inflation remains within the 2-3 per cent band over the medium term future). The NT is going to have to grow its international education market substantially if it is to have international education export income pass other export sectors to become the Territory's fifth largest export sector.

Intangible Factors

One intangible factor in the growth of the NT's international education effort is the effect of word-of-mouth reporting on future demand. If a student has a good experience with their HE, VET or ELICOS studies in the NT, they are likely to pass that on to family and friends at home (Ling and Tan, 2015). This will enhance future demand for NT international education services. This demand is likely to add arithmetical rather than exponential growth. Even so, considered provider investment in the things that matter to international students is merited. CDU has reacted by, for example, providing students with access to free transport between the Casuarina campus and the Waterfront business school. Students also have concessional travel on public transport. Together this removes one of the three constraints on student demand (accommodation costs, cost of living and cost of transport).

Recently the Committee for Melbourne (2014) looked at the experience of international students and proposed five areas that would repay investment: increase student accommodation; extend student travel concessions; volunteers to interact with students to boost their conversational English; employers offering internships to foreign students or post-study work rights; and accommodation close to the university. The NT has some of these features. Student accommodation has recently dramatically expanded and is close to the university. As mentioned above, students at CDU get free travel on the CDU bus and concessional travel on the Darwin bus service. There are part-time and casual jobs readily available in Darwin.

At present the NT exhibits most of the advantages that the Committee for Melbourne ascribes to the need to develop the international student market.

What scale effect these advantages will have is uncertain; what is certain is that they will be to the advantage of the NT international education sector.

9. THE FIVE CORE ASSUMPTIONS BEHIND THE PROJECTIONS

The Value of the Australian Dollar

Unlike Deloitte, whose modelling assumed an Australian dollar at about US 80 cents. The model advanced here assumes that the Australian dollar will remain at about US 75 cents over the next decade. The US dollar is the benchmark in the case of international education; its price sets the comparative advantage of Australian international education. The Australian dollar valued at US 75cents was the historical experience of the 25 years after the deregulation of the Australian dollar. That was temporarily changed by the mining boom of the early 21st Century, which was extraordinary and unlikely to be replicated within the next decade. The low Australian dollar, plus the relative advantage of Australian universities, as identified by Deloitte, means Australian (and CDU) HE will remain internationally competitive over the next decade. Probably it will be increasingly internationally competitive.

Economic Growth and Relative Advantage in the Market Region

Growth in Asia will slow from the early 21st Century boom but will remain adequate to grow the aspirational Asian middle class. The migration element will remain important in a region with somewhat turbulent politics. Deloitte gives Australian HE a relative advantage of eight, which is conservative, based as it partly is, on an assumption of an Australian dollar valued higher than historical experience suggests.

Student Retention

This is an important self-interest issue both for the provider and the student, neither of whom profit from a failure by the student to complete their course. In the longer term it is also important in developing the reputation of the provider. The NT's main provider, CDU, seems to have paid particular

attention to this issue and has improved international student retention dramatically in recent years.

Real Fee Increases

One aspect of the position of international education exports that has not received much attention is the issue of price, especially for undergraduate and postgraduate education.

CDU is part of the Innovative Research Universities group. So it is relevant to consider CDU in comparison with those institutions as well as the entire sector. As befits its 2014 Austrade award-winning reputation, CDU has rapidly grown its international student cohort in recent years. Table 2 below shows that, albeit from a low base, CDU has grown its international student numbers faster than relevant comparators and the HE sector in general (cf. Larkins and Marshman, 2016: Table A.1). It also avoided the slump in national recruitment that followed the rise of the Australian dollar to parity with the US dollar between 2009 and 2012.

Table 3. Comparative University Growth Rates for International Students and International EFTSL (as a per cent of total, 2009-13).

	Growth Rate	Proportion of total enrolments
Innovative Research Universities	11.10%	24%
Charles Darwin University	15.10%	15%
National University System	2.2%	26%

Source: Australian Education International.

Theoretically there is significant room for CDU to grow its international student numbers. CDU's proportion of International EFTSL against its total EFTSL is 15 per cent. The Innovative Research University average is 24 per cent and the national average is 26 per cent. So, without unbalancing itself institutionally, CDU could look to rapidly increasing its proportion of

International EFTSL over the next decade. Nevertheless there are two major matters which CDU and the NTG have to consider:

1. The fact that it may be easier for CDU to grow its international student cohort in Sydney and Melbourne than in Darwin.

This point was dealt with above. It remains that it is easier to recruit good academic staff in major metropolitan cities than to Darwin. There is a much larger pool of qualified people there and they don't have to uproot their families to take a post in these large cities, unlike any shift to Darwin. So, by and large, it would possibly be easier for CDU to rapidly expand its international student load in these major cities. Students in Sydney and Melbourne add multipliers to those economies. So the NT economy benefits only by a proportion of the students' fees paid to CDU.

2. The issue of CDU's fee structure

CDU fees are very low by national standards (Larkins and Marshman, 2016: Fig.7). Indeed it is one of a small cohort of Australian universities whose fees decreased in constant dollar terms between 2004 and 2014 (Larkins and Marshman, 2016: Fig.7) and decreased in real terms per individual student (Larkins and Marshman, 2016: Table 5) over this period. This may be a result of a previous university administration making the judgement that students didn't want to come to Darwin and needed a price incentive to do so. This argument is not convincing. Darwin has a relaxed tropical lifestyle and the advantage of several direct air links to SE Asia. The gap in the cost of living, relative to the rest of Australia, is declining as Darwin grows. Indeed the next five years will probably see the cost of living in Darwin nearing the national average (allowing for the transport cost effect).

This issue is important. CDU charges are markedly below those of the other Innovative Research Universities, which are generally below the Technology Universities, let alone the Group of 8 (Norton and Cherastidtham, 2015a: fig. 4). For my purpose here, the University of Western Sydney is a relevant point of comparison because that university is a

competing low-cost provider. Table 4 below shows this disparity in fee-setting.

Table 4. Selected CDU Course Prices and Comparison with University of Western Sydney.

	CDU				UWS
	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Rate Incr.</u> <u>(2014-16)</u>	<u>2015</u>
Master of Engineering	21 440	22 400	24 488	14.20%	26 560
Master of Business/Commerce	20 560	21 440	23 448	14.00%	25 320*
Master of Information Technology	18 480	19 520	20 800	12.50%	26 560
Study Abroad (2 Sessions)	16 160	16 160	17 000	5.00%	17 600
Bachelor of Engineering	21 360	22 240	24 320	13.80%	26 360
Bachelor of Commerce	16 880	17 600	19 360	14.60%	21 800
Bachelor of Accounting	16 880	17 600	19 360	14.60%	21 800
Bachelor of Nursing	20 800	21 600	22 680	9.00%	24 280
Bachelor of Computer Science	18 320	21 600	22 680	13.80%	24 640

Note: * For this course Melbourne University charges over \$64,000, in effect cashing in on some price inelasticity associated with prestige (for a discussion of this point see Norton and Cherastidtham, 2015a p.1 and *passim*). Source: Norton and Cherastidtham (2015a).

If CDU raised its fees to the level of UWS, then it would automatically earn about \$16 million more from the current cohort numbers. That would instantly propel international education exports earnings up in the NT's exports; it would leapfrog aluminium concentrates and near inorganic chemicals (cf Fig. 2 above). Consequently this approach merits serious consideration. As an illustration of the upper reaches of pricing, Melbourne University charged over \$37 000 more than CDU for a Master of Business; so the market should be able to bear some increase on CDU's current prices, which are lower in real per student terms than they were five years ago.

This point also applies more generally to all of the NT's education exports. This does not mean that all the international education sectors are equally able to expand. Over the 2014-16 period VET fees are slated to increase by 6.4 per cent. This probably reflects a realistic assessment of the current VET market. This does not counteract the real reduction in VET prices because of the 25 per cent depreciation of the Australian dollar. This means that CDU VET fees have decreased in International Purchase Parity Pricing terms by about 20 per cent. Australian VET generally has to deal with adverse Federal policies, plus a series of visa, completions and other scandals that has possibly inflicted collateral damage on Northern Territory's VET providers. VET education in the NT has not expanded, probably because of the difficulty of tailoring offerings to an international market and the SVP restrictions. Growing VET appears to be a relatively high-cost, high-risk means of growing international education exports from the NT when compared with the HE alternative. This may change in July 2016, when the visa categories are due to be drastically simplified down from eight categories to two.

Similarly, the schools contribution to the international education sector is modest (cf. Table 1 and Table 4 above). At present most of the international demand for schools seems to come from parents working in the Northern Territory on working visas. A dedicated college for international education may have some market appeal as a launching pad for entrance to HE and this is currently being considered in the draft CDU strategic plan. Nationally about 33 per cent of international users of Australian schools eventually enter HE (DET, 2015b). That is not surprising as they are often the children of parents working in Australia on work permit visas and possibly seeking Permanent Resident or Citizen status.

Tripling HE Exports

This paper will propose a model that could achieve the NTG target for an increase (in 2014 dollars) of \$100 million of exports for this sector by 2024. The focus will be upon HE, because both the return to the regional economy is higher from HE students and that an HE-led strategy has the best prospects. The model also proposes that the growth required to achieve an

effective tripling of the value of the international education export sector be concentrated in Darwin.

The model is built on two core assumptions:

- that CDU should aim to grow its Darwin-based international HE student component at 10 per cent per annum; and
- that it increase fees at five per cent per annum.

If this model was achieved, then in 2024 CDU would add \$62.9 million (in current dollars) to its international exports from tuition fees and charges, as well as the value-added of student expenditure of another \$49.6 million. That would double the HE part of this export sector in current dollar terms. The other elements of the sector would have to be increased at half the rate of HE if the NTG's ambitions for the tripling of the NT's international export budgets was to be achieved. The ELICOS effect would come into play consistent with this strategy. Nationally about one-third of ELICOS students go on to HE. So ELICOS is integral to any growth in HE. *ELICOS both leads and follows HE growth.*

As a caution it should be noted that Deloitte (2014) predicted only a 3.4 per cent growth in students and a 3.9 per cent growth in revenue in Australia's international education exports over the period 2014-30. They have taken an historical average that does not allow for innovative institutions operating from a low base; since 2009 CDU has grown its international student numbers at far higher rates than the national average (Larkins and Marshman, 2016). They also have over-valued the dollar. Consequently the Deloitte prediction does not contradict the superior possibilities for CDU.

However there are some further considerations to this beguiling scenario.

- Student numbers: A target of 10 per cent *per annum* growth in student numbers appears ambitious but the average annual growth rate for the years 2009-2012 was over 18 per cent. The last two years have seen growth rates of 30 percent (albeit with big growth in Sydney and Melbourne). So a long term plan to grow the student cohort by 10 per cent is realisable and realistic.

- Fees rises: Fee rises of five per cent per annum for a decade are achievable in the context of both the likely stability of the Australian dollar at about US 75 cents and the possibility of some ‘catch-up’ with the fees charged by other Australian HE institutions. Currently (ie from 2015 to 2016) fees for high-demand courses are rising by eleven per cent (cf Table 5 above). CDU fees are at the lowest end of fees for international students (Norton and Cherastidtham, 2014, p.57).
- Capital costs in 2016/17: If a Darwin-centric strategy was pursued by CDU the University would either have to construct new accommodation at a higher rate than in the past or to form partnerships with and/ or encourage private developers to provide the accommodation. There would be a role for the NT Government/CDU partnership in securing this goal.

Alternative of Mixed Model (some expansion in Melb/Sydney)

If the growth strategy included allowing the Melbourne and Sydney campuses to develop to having 1 000 EFTSL each, that (even at the reduced rates of revenue to the Casuarina campus) would bring in \$22.2 million in tuition fee income directly to the NT economy (in 2014 dollars). Together with the value-added impact, that would further increase the international export sector by about another \$39.7 million.

These strategies, coupled with a rise in ELICOS, would mean that the NTG ambition of a tripling of the international education sector by 2024 is realisable. The CDU is currently developing its offshore/internationalisation strategy, which is not incorporated into these prognostications.

10. CONCLUSION

The international education export industry netted over \$51 million dollars to the NT economy in 2014. That is at least \$9 million more than Flanagan and Mitchell’s estimate for 2012. For a variety of reasons, both figures are likely to be under-estimates for their time. If all the activities indicated above were included, then the international education exports of the NT may

probably have been close to \$52 million in 2014. This compares with the ABS estimate of \$51 million.

This is important for regional development. The international education export sector creates employment in a variety of industries, principally for the service providers and local retail industries. It supplies some labour to local industry (probably of a casual or part-time nature) but also creates well over 500 EFT jobs in the local economy of Darwin. So it is an increasingly important contributor to the NT regional economy.

Although international education exports are at present the tenth largest of the NT's export industries they have a solid growth potential. Such is its potential that the industry can triple its contribution to the NT's exports by 2024. So, *contra* the Gratton, 'other people's money' critique of regional universities, growing international education exports is a viable regional development strategy and more promising than any other alternatives currently available to the NT.

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APPENDIX 1. A Note on the Methodology

To determine the effect that international students provide to their university's regional development impact, two methodologies are possible: cost-benefit analysis or regional input-output analysis.

1. Cost-Benefit Analysis

Students bring in fee income and impose marginal costs. *Prima facie*, the costs are relatively fixed and the benefits more elastic. The costs – e.g. more accommodation and staffing - are borne by the university but they are inputs into the regional economy. Builders get money for building and lecturers spend money on goods and services in the local economy. So for this exercise these costs don't vitiate the model of the benefits of international students.

Nevertheless a reason for not using cost-benefit analysis was that it would require calculating the marginal social benefits of universities: spillovers such as improved democratic participation, social mobility, health and longevity, as well as, for example, reduced demand for social welfare and reduced crime rates (eg Fare *et al.*, 2016). To say nothing about injecting 'creative people' into the regional economy as per Richard Florida. It was decided not to introduce any such complications into the *direct* economic impacts of international students because *this paper is not a measure of the aggregate regional impact of the university, merely of one cohort of its students*. Suffice it to say that student fee income has risen in recent years (Norton and Cherastidtham, 2015a). This rising income from student fees creates a 'virtuous circle' for universities. Given that student fees are used in part to cross-subsidise research (Norton and Cherastidtham 2014, p58, Norton and Cherastidtham, 2015b), the increase in research output then secures increased Federal research infrastructure block grants, and so on. Between 2011 and 2015 CDU's grants for the four major block grant programs (excluding those to directly fund international and domestic postgraduate student scholarships) rose from \$9.6 million to \$12.3 million, or by 28 per cent in a period when total funding declined in real terms. International students pay between 50

and 100 per cent more than domestic students, so their level of cross-subsidy of research is even greater than for domestic students.

2. Regional Input-Output analysis

This alternative approach to measuring regional economic development impacts (Access Economics, 2009) is the one used here. The problem is really that such estimates rely on regional input-output models that assume the same economic structure as national input-output models. This doesn't apply to the NT, where most goods are imported. So the multipliers in this paper may be slightly inflated. Nonetheless several countervailing elements that would increase the economic contribution of international students were ignored as too difficult to calculate. For instance, many of them work either part-time or casually. This labour increases the productivity and output of the Darwin regional economy. But by how much it is impossible to ascertain.

On a minor note, estimates for the impact of VFRs have averaged the best extant estimates. Tourism Research Australia (TRA, 2007) estimated that VFRs were at 0.5 visits per EFTSL international students and Davidson *et al.* (2010) estimated that at 0.7 per student. I have used a figure of 0.6 per student.