

Global Demand for International Students as Skilled Migrants

Lesleyanne Hawthorne
Professor (International Workforce)
University of Melbourneⁱ

18 October 2014

**Paper prepared for the
High-Skilled Immigration Policy and the Global Competition for Talent Meeting**
(Washington DC 22-23 September 2014)

Introduction

Striking demographic shifts are underway in developed nations, where fertility decline is fuelling competition for high-skilled migrants. According to the Chief Economist of the OECD, 'Over the next couple of decades nothing will impact on (member) economies more profoundly than demographic trends and, chief among them, ageing'. Within a generation, select OECD nations are at risk of contracting by a third, with severe productivity implications. The majority of countries have fertility rates below replacement level (for example the UK 1.9, Australia 1.8, Canada 1.6, Germany and Japan 1.4), with labour market impacts certain to be intensified by 'baby boomer' retirements.ⁱⁱ

Within this context, international students represent an increasingly attractive human capital resource, with the decision to study abroad often the first step on a global career trajectory. By 2008 North America (the US, Canada), the European Union (UK, Germany, France), and the Asia-Pacific (Australia, China, Japan and Singapore) were the major recipients of international student flows (see Table 1), with China, India, the Republic of Korea, Japan, Malaysia and Indonesia the dominant student source countries.

The 'war for skills' is now rapidly intensifying. Global governments and employers compete to attract the 'best' human capital, with international students characterised by youth, host-country language ability, full credential recognition, significant acculturation, and domestically relevant professional training. In essence, they have self-funded to meet domestic employer requirements. For countries with conflicted views on migration (for example Germany and Japan), international students may represent the most 'palatable' form of skilled migrants. There are three additional reasons why international students are increasingly sought:

First, export education is a fast-growing and elastic global industry:

- In 2002, 2.1 million international students were studying abroad, rising to 4.1 million at the tertiary level in 2010. Around 85% were derived from Asia.
- By 2025 7.2 million are predicted globally, in a highly lucrative industry for both host countries and institutions. In 2010, for example, at a time when international students constituted 27% of the student body at the University of Melbourne (Australia's premier research university), the

fees they generated constituted a greater revenue stream than the remaining 73% of domestic students.

- OECD countries are to date the destination of choice, despite the dynamism of contemporary Asian developments (most notably in China).
- By 2013 the US higher education sector included 819,644 international students (7% growth on the previous year), primarily from China (29%), India (12%), South Korea (9%) and Saudi Arabia (5%)ⁱⁱⁱ.

Table 1: Top International Student Destination Countries by 2008 (% Share of World’s Higher/ Vocational Education Market)

Provider Country	International Student Enrolments	Global Market Share (Latest Data)	% of Domestic Higher Education Population
1. United States	624,000	21.0% (2008)	3.5%
2. United Kingdom	390,000	12.0% (2008)	14.8%
3. Australia	389,000	12.0% (2008)	18.0%
4. France	260,500	9.0% (2007)	11.7%
5. Germany	246,000	9.0% (2007)	12.4%
6. China	223,500	7.0% (2008)	1.0%
7. Japan	124,000	4.0% (2008)	3.0%
8. Canada	114,000	4.0% (2007)	10.8%
9. Singapore	86,000	2.0% (2007)	*20.0%
10. Malaysia	72,000	2.0% (2008)	8.5%
11. South Korea	64,000	1-1.5% (2008)	5.7%
12. New Zealand	40,000	1.5% (2007)	8.3%

Source: Adapted from data provided in *International Student Mobility: Status Report*, V Lasanowski, The Observatory on Borderless Higher Education, London (June 2009). For Singapore (*) this estimate is based on undergraduate university enrolments only.

Second, scope to remain in host countries powerfully influences study destinations:

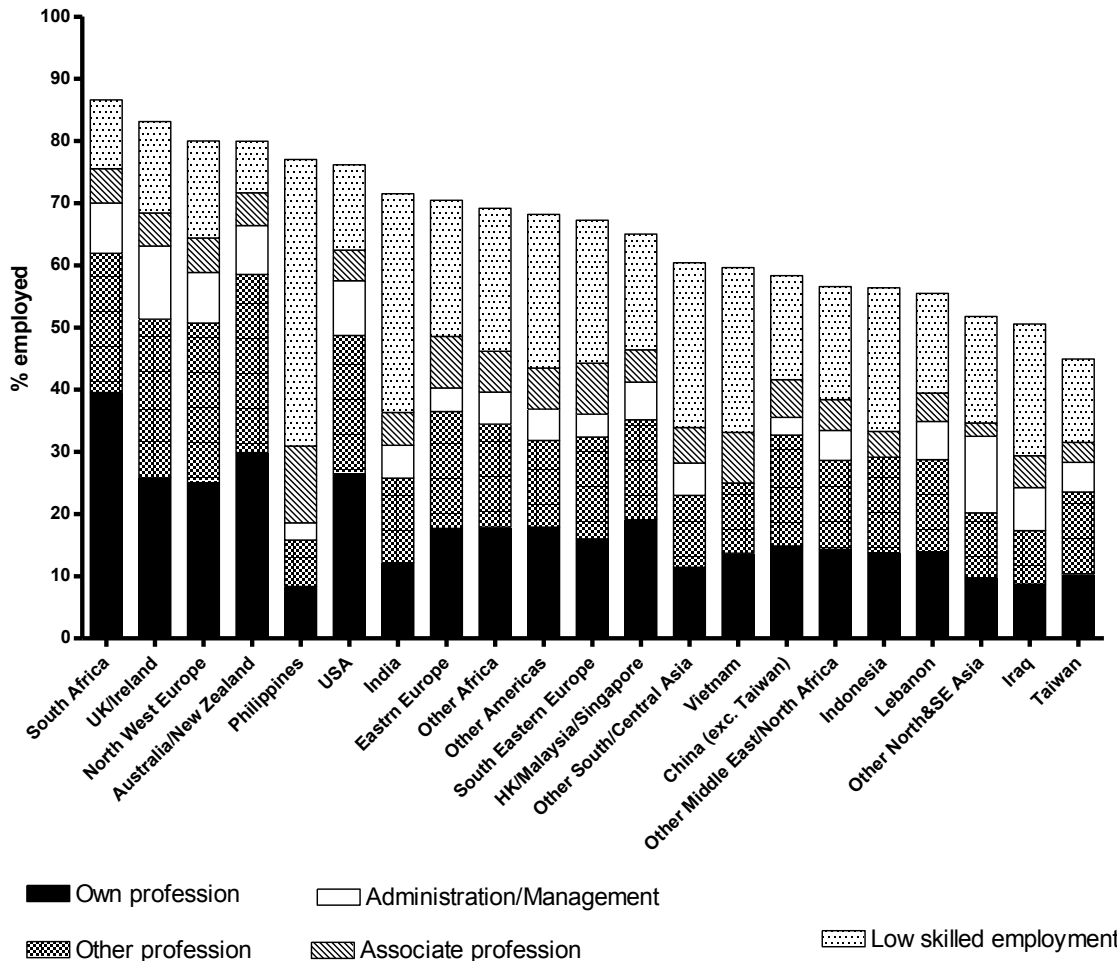
- A 2012 British Council survey of 153,000 international students demonstrated while most sought a quality ‘internationally-recognised education from highly reputable universities’, scope to remain and work on course completion ‘massively impacted prospective student opinion’ and destinations^{iv}.
- When Australia introduced a direct study-migration pathway, around 150,000 international students were enrolled. By 2010 export education had become Australia’s third top industry and the first for the state of Victoria.
- As demonstrated most recently in the UK and Australia, threatened contraction of the study-migration pathway risks a plunge in the scale of international student enrolments. In 2014, for example, the UK experienced its first major drop in international students in 29 years. This included a 50% decline in postgraduate Indian and Pakistani student enrolments, directly reflecting sharply reduced UK skilled migration options^v.

Third, international students qualified in host countries can be highly attractive to domestic employers relative to skilled migrants qualified offshore:

- In Canada, for instance, primary recent sources for skilled migrants have been China, India, the Philippines, Pakistan and Romania — non-OECD countries associated with highly variable education systems. Canadian selection criteria until recently treated all degrees as equal, regardless of training variability, with English (or French) ability not compulsorily screened. In

recent decades vast numbers of migrants have experienced skills discounting and occupational displacement. (See Figure 1.) By 2007 economic migrants were described as ‘the new face of the chronically poor’ in Canada, taking up to 28 years to secure wage parity with comparably qualified Canadians^{vi}. Comparable trends existed in a wide range of OECD countries.

Figure 1: Degree-Qualified Migrants’ Employment by Employment Type in Canada, by Birthplace, 1996-2001 Arrivals in All Immigration Categories (2001)



Source: Hawthorne, L (2008), *The Impact of Economic Selection Policy on Labour Market Outcomes for Degree-Qualified Migrants in Canada and Australia*, Institute for Research on Public Policy, Vol 14 No 5, 2008, Ottawa.

Snapshot – Select Host Countries

Establishing the Study-Migration Pathway

Host country governments facilitate retention, ‘seen in the increasing incidence of national programmes for students’ recruitment with a specific view towards longer term or permanent settlement’^{vii}. In the past decade the majority of OECD nations have:

1. Developed high-skilled migration policies, including categories designed to attract and retain international students
2. Expanded the scale of international student flows, through enhanced global promotion and marketing functions
3. Provided access to 'job search' postgraduate year/s to extend international students' stay
4. Applied this opportunity to all locations and disciplines (following a preliminary focus in some countries on science and engineering)
5. Constructed pathways from temporary to permanent resident status, supported by priority processing, and/or uncapped migration categories^{viii}

In the context of these developments there is now unprecedented competition for international students, across OECD and select Asia-Pacific nations. While brain drain is a major concern, and the ethics of student migration are a matter for debate, parents rather than source countries have typically resourced their education. From an ethical perspective their recruitment can seem less problematic than the OECD norm—selection of mature-age professionals fully trained in their source countries.

Global surveillance of competitor strategies is now unprecedented, supported by neutralisation of perceived academic barriers and disincentives. Multiple providers deliver courses taught wholly in English (including in Norway, the Netherlands, Germany, China and Japan), recognising the attraction of English as the global language. The Netherlands, as early as 2007, offered over 1200 courses taught wholly in English, including around 900 bachelor and masters degrees, with students recruited through seven global offices (including in Mexico, Indonesia and Vietnam). The UK launched major international student recruitment initiatives in 1999 and 2006, designed to challenge Australia's contestation of key markets (eg Malaysia). The Blair government's skilled migration policy (2008+) expanded international students' scope to stay, including their immediate access to work permits and (if employed) subsequent high-skilled migration.

The US has a longstanding reliance on international doctoral students, to maintain scientific pre-eminence. In 2007 a Congress report noted 'Though most of the world's top universities are currently in the US, many (countries) are determined to change this balance, and they probably will. To remain competitive in the coming decades, we must continue to embrace the most capable students and scholars of other countries. Our security and quality of life will depend on it'^{ix}. Two-thirds of international doctoral students are typically retained at least five years, with China and India the primary source countries^x. The pathway to permanent residence however is long relative to global competitors. By 2008, according to the National Science Foundation,

Consider a hypothetical case of a bachelor's level engineer who enters the United States with a student F visa to pursue a doctorate, who spends 6 years completing the doctorate, followed by 2 years in a postdoc position, and then is hired by an employer for a permanent job on a temporary work visa. The employer applies for a permanent work visa for their new worker, who receives it 2 years after starting work. Now, 10 years after entering the United States, a 5-year waiting period begins after receiving a permanent visa, before the engineer can apply for citizenship. The engineer applies soon after becoming eligible, and after 1 year, becomes a US citizen, 16 years after entry to the United States^{xi}.

While opening the US labour market to guest workers is 'one of the roughest issues facing Congress', the United States allows 'an easy attestation procedure for employers seeking college-educated foreigners to fill jobs that require a college degree under the H-1B program'^{xii}. The US Senate's 2013 Comprehensive Immigration Reform policy proposal included the establishment of a 'merit-based' skilled migration

program designed to 'prioritise US employment and work experience'. Alongside dramatically expanded green card quotas, this scheme would favour US or foreign-qualified PhD graduates in any field 'to apply for green cards without an offer of employment and subject to no numerical limit'^{xiii}.

In 2012 a Canadian government report called for a doubling of international student enrolments, from 240,000 in 2011 to 450,000 by 2022. The aim is to ensure that 'the world sees Canada as the place to be for top talent', with significant numbers retained. By 2012 a modest 3,983 students and temporary foreign workers converted onshore to permanent skilled migrant status - double the number of a decade earlier^{xiv}. The European Commission is redesigning the law governing international student and researcher mobility, with a draft anticipated to the European Union Council and European Parliament by 2016. Research demonstrates UK corporations target international students as prospective employees, based on 'deliberate selection of particular types... according to their nationality or disciplinary training'^{xv}. Germany, having achieved 62% international student growth since 1997, promulgated a skilled migration policy in 2005, targeting students while maintaining a policy of zero international student fees. Austria exempts former students from its quota for foreign workers, with scope for permanent residence after 5 years. Comparable trends prevail across Europe. In New Zealand, where the post-war migration of 2.3 million migrants translated to a net population gain of just 208,000 people, 92,995 international students were enrolled by 2012. A third of these students currently migrate. Key incentives have been introduced, including fee waivers for foreign doctoral students, and an accelerated ten day visa processing period.

Important study-migration developments are similarly occurring in Asia, where demographic contraction is driving change. As early as 2005 Singapore, for instance, was attracting 2% of the global market (66,000 students), with 13% of its tertiary sector enrolments from overseas - in particular from China (15,000), Indonesia and Malaysia. Marketing itself as 'the best of East and West... the Global Schoolhouse', Singapore aims to attract 150,000 additional students by 2015, a process expedited by impressive international academic rankings. Retention is deemed a priority, in a context where by 2014 Singapore had the lowest fertility rate in the world (just 0.8). Despite its 'super-ageing society', Japan to date maintains an ambivalent attitude towards skilled migration, with highly restrictive immigration barriers. With its population predicted to fall by a third within 50 years however (with more than one in three Japanese aged over 65), a preferential high-skilled migration program was introduced in May 2012. This will facilitate the entry of physicians along with scientific researchers, academics and corporate executives^{xvi}. By 2011 130,000 international students were resident. Few are currently retained or employed (just 11,000 that year). Given Japan's 1.4 fertility rate, however, this policy seems certain to be revisited^{xvii}.

On this basis it is worth exploring Australia's recent experimentation with the study-migration pathway.

Australia's Experimentation with the Study-Migration Pathway

Establishing Immediate Opportunity to Migrate

In 1999, following the removal of a three year eligibility bar, international students became immediately eligible to migrate to Australia. From 2002 they could apply onshore - ideally placed to secure the required 115-120 points if they possessed a recognised vocation-related degree (60 points^{xviii}), were aged between 18 and 29 years (30 points), had intermediate English language ability (20 points, with

testing exempted), and an Australian qualification of 2 years in a field on the Migration Occupations in Demand List (MODL).

The impacts of this policy change were immediate:

- By the time of Australia's 2006 skilled migration review, international students applying to migrate had a 99% chance of being selected, unless failing health or character checks^{xix}. Sixty-six percent of all Indian students and 38% of Chinese students converted status to stay.
- Scope for skilled migration had fuelled the development of new international student markets, while transforming the sector and discipline of student demand.
- Within this process, the migration and export education programs had become inextricably linked, representing a potential 'win-win' for Australia. By 2008 international students were generating \$A26.7 billion per year, in a context where the industry had emerged as Australia's third largest^{xx}. By August that year 474,389 international students were enrolled in Australian tertiary, vocational education and training (VET), English language or school courses, including substantial numbers located offshore. 432,678 international students were resident in Australia, with China (119,786) and India (72,314) the dominant groups, followed by the Republic of South Korea, Malaysia and Vietnam.
- By June 2010 international student enrolments stood at 630,000, profoundly influencing Australia's net population growth^{xxi}.

Skilled Migration Employment Outcomes for International Students – Emerging Challenges

From 2005 to 2007 Australia secured impressive outcomes from its skilled migration program in global terms. The most comprehensive review in 20 years found that 6 months post-migration, 83% of primary applicants (PAs) were employed or self-employed (around half of these at the time were former international students seeking their first job, and of Asian rather than English-speaking background origin). Work satisfaction was reasonably high, with the fields of computing, accounting, engineering, nursing, business and management predominating. Principal applicants from English speaking background countries fared best, with early employment rates of 92-97%, followed also by strong labour market integration rates for migrants from Europe and India.

The study-migration pathway clearly provided a protecting benefit for 'at risk' groups. Seventy-four percent of onshore from China were employed at 6 months compared to 53% selected offshore. Similarly positive effects were found for North African/ Middle East and Commonwealth-Asian migrants. (See Table 2.) At 18 months post-migration 89% of PAs in Australia were employed or conducting their own businesses (far exceeding rates at this time in Canada). Seventy per cent were working in their preferred occupation (rising from 53% at 6 months). Job mobility was impressive and salary levels had improved markedly. Just 18% of skilled migrants had been out of work in the previous year (typically for a few months), with welfare dependence now negligible.

Challenges as well as benefits however were found to be associated with the study-migration pathway. Former international students achieved inferior labour market outcomes to offshore skilled migrants. Most notably:

- Despite near identical proportions being employed at 6 months (83% compared to 82%), former international students had annual salaries of \$A20,000 less and lower job satisfaction. (They also earned far less than new domestic graduates.)
- They were far less likely to use their qualifications in work (46% compared to 63% of offshore principal applicants).

Table 2: Skilled Migrants' Employment Outcomes 6 Months Post-Migration in Australia, by Select Birthplace (2006)

Birthplace	Independent Visa Category	Employed	Unemployed	Not in LabourForce	Total Number	Statistics (a)
English Speaking Background (b)	Onshore	86.7	7.2	6.0	83	14.86**
	Offshore	92.9	1.8	5.3	169	
	Other (c)	83.4	4.4	12.2	1731	
Commonwealth-Asia (exc. India)	Onshore	84.5	8.2	7.3	452	93.54***
	Offshore	77.6	14.1	8.2	85	
	Other	56.8	20.8	22.5	525	
China (d)	Onshore	74.8	10.9	14.3	357	81.71***
	Offshore	54.7	27.4	17.9	95	
	Other	47.6	20.7	31.7	801	
India	Onshore	92.2	7.3	0.6	179	70.3***
	Offshore	91.1	5.9	3.0	101	
	Other	64.4	20.1	15.4	402	
Other Asia (e)	Onshore	87.6	6.9	5.6	540	247.8***
	Offshore	80.0	12.2	7.8	90	
	Other	51.4	18.4	30.1	1829	
Europe (f)	Onshore	91.2	5.3	3.5	57	26.9***
	Offshore	91.7	5.6	2.8	36	
	Other	65.3	13.2	21.5	939	
North Africa/ Middle East	Onshore	89.5	10.5		19	22.4*** (g)
	Offshore	71.4		28.6	7	
	Other	40.0	25.5	34.5	592	
Other	Onshore	89.8	3.4	6.8	86	38.39***
	Offshore	90.0	6.7	3.3	60	
	Other	63.7	15.5	20.9	575	
Total	Onshore	84.9	7.9	7.2	1776	449.91***
	Offshore	82.6	10.0	7.5	643	
	Other	61.4	15.3	23.3	7395	

Source: Longitudinal Survey of Immigrants to Australia 3 Wave 1, Department of Immigration and Citizenship data (provided to the author)

(a) Chi-square unless otherwise stated df=6, * <0.05 ** <0.01 *** <0.001;

(b) ESB = Australia/ New Zealand/ Eire/ UK/ Canada/ USA/ South Africa

(c) Other = Other skill migration categories, including employer sponsored, state/ territory sponsored and business categories (with lower qualifications required)

(d) Excludes Hong Kong/ Macau

(e) Indonesia/ Philippines/ Japan/ South Korea/ South-Central Asia

(f) Excludes Eire/ UK

(g) Fisher's exact test * <0.05 ** <0.01 *** <0.001

- A number of contributory factors were identified in relation to this: most notably students' modest English ability, inadequate quality control of Australia's rapidly emerging private vocational training sector (providing migration-aligned courses), compromised academic entry and progression standards, and the extraordinary level of cultural and linguistic enclosure of international students enrolled in such programs.
- Most notably, a serious skewing in terms of field of qualification had occurred. As demonstrated by Table 4, international students at the degree and sub-degree level were overwhelmingly concentrated in business/ commerce courses at this time, for which there was limited Australian labour market demand, followed by accountancy training. (By contrast in the US in 2012/13 22% of international students were taking business/management courses, followed by

enrolment in engineering [19%], maths and computer science [10%] and the social sciences [9%]^{xxii}.)

- Further, a serious ‘dumbing-down’ of the study-migration pathway had occurred. Instead of degrees, large numbers of international students had enrolled in low-grade rapidly proliferating private vocational colleges, which were minimally quality assured. Many of these colleges had compromised English, academic entry and progression standards. According to an analysis of Indian international students at this time, ‘education was hardly a priority for most.... especially among those studying at the cheaper colleges with a lesser reputation’:

Some students even referred to the colleges they or their friends attended as ‘PR factories’... meaning that they perceived these institutes to be mainly in the business of migration, and not education... Often such colleges made use of their own recruitment networks... and increasingly they seemed to focus on smaller cities and towns in India which had previously not sent many students overseas. Their (often) much lower fee structures than more established institutes means that overseas education has become available for a much wider group of Indians^{xxiii}.

- In the context of serious over-supply in select fields, employers became highly discriminating about the human capital attributes of former international students as employees – including their English ability, and the perceived calibre of their Australian training.

Table 3: Top Five Disciplines of Enrolment for International Students Enrolled in Australian Higher Education and Technical Training Courses (2002 Compared to 2008)

Top 5 Degree Enrolments by Field	2002	2008
Business/ Commerce	29068	48922
Accounting	4187	20210
IT	19061	13528
Engineering	6991	11052
Teaching	2948	5796
Top 5 Dip/Adv Cert 111 & 1V By Field		
Business/ Commerce	14316	62351
Food/ Hospitality	1264	11551
Hairdressing	272	6514
IT	11013	5006
Accounting	988	4455

Source: Analysis of unpublished international student enrolment data in Australian courses, provided by the Department of Education Employment and Workplace Relations, Canberra (provided to the author).

Refining the Study Migration Pathway (2007-2014)

Stage 1 - Tightening Selection Criteria (English and Qualification Level)

Responding to the skilled migration review findings from 2006, successive Australian governments have taken decisive steps to refine the study-migration pathway. Collectively, the impact of these measures has been profound:

- **Enhanced English language levels:** From September 2007 exemptions from English language testing were no longer automatically allowed, given the impossibility of policing education provider standards^{xxiv}. A score of International English Language Testing System (IELTS) Band 6 became the threshold skilled category ‘competence’ score required across all 4 skills (increased from IELTS Band 5). Significant bonus points were introduced for ‘proficient’ English, with English rather than a Migration Occupation in Demand becoming the key determinant of points-based selection.
- **Prioritising degrees:** Higher points were awarded graduates with advanced qualifications: most notably those possessing doctoral degrees (25 points) or 3 year qualifications (15 points).
- **Work experience:** Liberalised access to post-course visas was introduced, allowing students an additional 18 months to upgrade their skills for economic category selection (‘gain skilled work experience; improve their English language skills; or undertake a Professional Year’ related to field of study^{xxv}).

Stage 2 – Addressing Quality Assurance, Occupational Demand, and Employer Requirements

Following the election of a Labor government late in 2007, refinement of the study-migration pathway became an early strategic priority. The problem of institutional quality control was intensifying – an unanticipated consequence of Australia allocating up to 20 bonus points to skilled applicants with qualifications on the migration occupations in demand list, in the context of sustained economic boom (driven by the mining sector). Private training colleges, as demonstrated, had responded rapidly to this opportunity, including registered training organizations described in the course of the skilled migration review as ‘wily entrepreneurial players who exist solely to funnel international students into skilled migration’. Indian students had proven the most immediately responsive - 36,045 enrolled in vocational courses by June 2008, compared to just 1,827 six years earlier^{xxvi}. Lack of quality assurance could risk such students being ‘treated as commodities in a marketplace that charges top dollar for low-grade education and training’, in what appeared to some critics to be a ‘government-sanctioned racket’^{xxvii}.

Table 4: New International Student Commencements by Australian Education Sector (August 2006 and 2007)

Education Sector	August 2006	August 2007	Change %
Higher education	64,230	69,238	7.8%
Vocation and Technical Education (VET)	38,023	57,328	50.8%
ELICOS	38,190	53,446	39.9%
Schools	9,790	12,241	25.0%
Non-award and other	20,608	21,224	3.0%
Total	170,841	213,477	25.0%

Source: ‘Monthly Summary of International Student Enrolment Data—Australia’, Australian Education International, Department of Education Science and Training, September 2007 (Media Release)

Within this context the following steps were taken:

- **Quality assurance:** A review of quality assurance in Australia’s export education industry was undertaken, when the industry was defined as ‘at a crossroad’, with global damage perceived to have been done to both ‘reputation and brand’. The report’s recommendations (released 2010) affirmed the need for enhanced quality, accountability, and governance across all education

sectors. Perverse study-migration incentives were to be removed, including cheap courses supported by 'vertical integration of agents, providers, employers and landlords exploiting international students'^{xxxviii}.

- **Employer requirements:** A review was commissioned of the work outcomes achieved by former international students across eight professions and trades, including assessment of the attributes Australian employers sought. Released late 2009, this study affirmed English to be the critical determinant of early employment, supported by a high degree of acculturation – native English speakers or PAs speaking English very well being 4 times more likely to be employed at 18 months than those with poor English^{xxxix}. From 2010 onshore skilled applicants were also required to sit a 'jobs ready' test to check they had the skills being claimed^{xxx}.
- **Occupational demand:** A two-stage review of the Migration Occupations in Demand List was undertaken (2009), commenced with the release of two issues papers. The first proposed the government should 'target skills of high economic value' designed to 'complement domestic skills supply'. The second placed as its centerpiece 'a proposal to develop a Future Skills List (which) would advantage applicants with high value skills in areas of future need for the Australian economy', through the acquisition of additional points under the economic category points test or by according processing priority. This latter measure heralded a seismic policy shift^{xxxi}. In 2010 a new Skilled Occupation List (SOL) was announced. Virtually all health professions were featured, along with the engineering, IT and accounting fields (despite the problem of accountancy over-supply in recent years).
- **Priority processing** Rank order for processing became the new economic category paradigm, a process bypassing points-based assessment. Employer and State/ Territory nomination offered the best and fastest options (ranked 1 to 3 in priority)^{xxxii}. Places for Independent migrants shrank - processed fourth if they had an occupation on the Skilled Occupation List.
- **Timelag:** Unsponsored applicants, or those not qualified in priority fields, were advised they could expect processing delays of 3 or more years, many now having no prospect of selection. A points test review was initiated in 2010, the goal being to assess selection factors likely to deliver high level outcomes. According to the discussion paper future points-based selection '... should contribute to the selection of applicants who offer the most human capital and will therefore make the optimal contribution to Australia's demographic and economic outcomes^{xxxiii}.

Preliminary Impact of Policy Changes

The Australian government was confident of meeting these objectives. Economic category applications had far exceeded available places for years, by then standing at 'record high levels'. Demand had grown, 'despite increasingly tighter targeting of the program and changes to policy settings such as higher English language requirements and more stringent requirements for study in Australia'^{xxxiv}. The government signalled the potential consequences of this for international students:

The current weighting of the Points Test factors leads to perverse outcomes such as the situation where a Harvard qualified environmental scientist with three years relevant work experience would fail the Points Test, while an overseas student who completes a 92 week course in a 60 point occupation would, with one year's experience, pass^{xxxv}.

By late 2010 offshore visas for international students were reported to have fallen by a third, while demand for vocational sector courses had plummeted (-59%). New Indian student enrolments were in rapid decline (-77%)^{xxxvi}. Despite these trends, it was clear international students were responding immediately to Australia's refined skilled migration requirements. Application trends for the year to July

2010 showed 10% growth in demand for university courses, compared to just 1% for vocational sector fields - a major reversal of the pattern several years earlier^{xxxvii}. This process has since been maintained.

As demonstrated by analysis of Immigration Department longitudinal survey data, refinement of the study-migration was clearly justified from 2009-11. Six months following selection 92% of employer-sponsored permanent skilled migrants were working full time (with 90% of these in skilled positions). This compared to 76% of Independent migrants selected offshore (75% of who were employed in skilled positions) and just 65% of onshore skilled graduates who were former international students (whose rate of skilled work at this time was 58%). In line with this, international students' salaries were relatively low. (See Table 5.) It is important to note however that former international students' early employment rates still far exceeded those of family and humanitarian category migrants.

Table 5: Employment Outcomes at 6 Months for Primary Applicant Permanent Skilled Migrants by Sub-Category Compared to Family Category (Percentage 2009-2011)

Sub-Category @ 6 Months	Skilled Job	Other Job %	Not Working	Working Full-time	Participation Rate	Unemployed	SA Median Full-time Earnings
Employer Sponsored	90	7	3	92	98	0.5	71,300
Family/ State Sponsored	60	31	9	72	98	7	50,000
Offshore Independent	75	12	12	76	97	10	74,600
Onshore Independent	55	37	8	69	98	6	44,400
Skilled Graduates	58	36	5	65	98	3	40,000
All Skilled Category	68	24	8	75	96	5	52,000

Source: Adapted from Department of Immigration and Citizenship (2012), 'The Continuous Survey of Australia's Migrants: Cohorts 1 to 5 Report 2009-11', Canberra. Skilled category data adapted from Table 3.1 (p. 13) with Family category data derived from Table 1.1 (p. 8).

The Latest Australian Policy Refinements to 2014

Current Selection Strategies (Permanent Skilled Migrants)

Following Australia's 2010 points test review, major policy changes were progressively introduced. Most notably:

- **Sponsorship:** Employer or state-sponsored skilled applicants now receive priority processing, taking precedence over points-based Independent migrant selection (a critical issue for former international students, ensuring perceived human capital attributes matter).
- **Key determinants of selection:** The highest number of points are now allocated to applicants with IELTS Band 8 (near native speaker level), and for higher degree qualifications, in a context where with English ability and degree level have become the key determinants of points-based selection.

- **Occupation:** No points are allocated to applicants with an occupation in demand (a qualification included on the Skilled Occupation List). Rather this represents a hurdle rather than a points-rewarded requirement.
- **Place of qualification and work experience:** Minimal advantage currently flows from possession of Australian qualifications. Further, bonus points are provided for international as well as local experience, with only a slight premium awarded for recent Australian employment.
- **Age:** Eligibility for economic migration has been extended to applicants aged up to 49 years, with the greatest points now allocated to young tertiary-qualified experienced workers (25-32 years) rather than to new graduates (as had previously been the case).
- **Post-study rights to stay:** Finally, former students with Australian degrees are permitted to remain and work for 2 (bachelor), 3 (masters) or 4 years (PhDs) years following graduation. This is a more generous measure to date than offered by global competitors.

The most recent policy development has been the introduction of *SkillSelect*, which merges applications for temporary and permanent skilled migration, in a context where there has been increasing inter-connection between the two programs for years. The SkillSelect system:

- Combines pre-migration screening for temporary (four year) workers as well as permanent skilled migrants
- Provides immediate permanent resident status for elite applicants (those who secure employer or state-sponsorship, or who are the highest-scoring Independent applicants)
- Permits applicants not immediately selected as above to remain in an electronic ‘pool’ for two years, to be trawled by employers/ states to facilitate selection of temporary foreign workers, or (when this is their preference) permanent skilled migrants

Conclusion

Australia’s permanent skilled migration program, as demonstrated, now markedly favours the selection of older native (or near native) English speakers, qualified with bachelor or higher degrees. The government’s aims are clear – to ‘deliver the best and brightest skilled migrants by emphasising high level qualifications, better English language levels and extensive skilled work experience’^{xxxviii}. The study-migration pathway refinements described are based on sustained research evidence. In conclusion, two additional points are worth noting here.

First, the impact of labour market demand by field is highly significant for international students’ early employment outcomes. A recent study analysed labour market integration rates and salaries the year following graduation for 79,046 international students still resident in Australia, compared to 371,951 domestic students (constituting 450,997 responses in all). The aim was to assess their relative attractiveness to Australian employers (a globally under-researched issue). Employment outcomes were compared in 11 fields, including the main medical and allied health fields where labour market demand was strong to 2011 (medicine, dentistry, nursing, pharmacy and physiotherapy); the over-supplied fields in which international students have typically enrolled (business and commerce, accounting, and information technology); a field associated with highly variable labour market demand (engineering); and in two fields which are associated with modest international student flows (education and the law).

As demonstrated in Table 6 (with outcomes presented here solely for bachelor degree graduates), former international students were indeed sought by Australian employers to work in high-demand fields. In

medicine, for example, 99% were employed full-time at four months compared to around 100% of domestic students. Early employment outcomes were very poor by contrast in over-subscribed fields. Just 35% of accounting graduates had secured full-time work (compared to 83% of domestic graduates) and 40% of business/commerce graduates (compared to 76%). International students also had significantly worse outcomes in IT (42% compared to 78%) and in engineering (44% compared to 86%) – sectors subject to significant recent volatility. Similar trends prevailed for international compared to domestic masters degree students. While possession of PhD qualifications was found to offset labour market disadvantage to a marked degree, employers still demonstrated a preference for domestic students^{xxxix}. Moreover in the knowledge economy English language ability was found to be a key determinant of skilled employment.

Table 6: Impact of Demand by Field on International Student Employment Outcomes Relative to Domestic Student Graduates with Bachelor Degrees (Graduate Destination Survey 2009 to 2011)

Activity	Domestic Students				International Students				Total
	2009	2010	2011	Total	2009	2010	2011	Total	2009-2011
Bachelor Degree - Medicine									
Working FT (%)	99.5	99.8	99.7	99.7	96.9	98.8	100	98.8	99.6
Available for FT work (N)	744	842	1144	2730	98	165	161	424	3154
Bachelor Degree - Pharmacy									
Working FT (%)	97.9	97.4	97.5	97.6	98.3	96.6	93.1	96.1	97.3
Available for FT work (N)	481	538	484	1503	116	89	102	307	1810
Bachelor Degree - Accounting									
Working FT (%)	86.3	80.9	81.1	82.7	41.7	32.9	31.6	35.2	69.6
Available for FT work (N)	3213	3233	3373	9819	1193	1211	1340	3744	13563
Bachelor Degree - Business and Commerce									
Working FT (%)	77.2	75.6	76.4	76.4	39.4	39.4	40.3	39.7	72.9
Available for FT work (N)	6282	6665	7035	19982	672	649	780	2101	22083
Bachelor Degree - Information Technology									
Working FT (%)	79.9	74.8	79.1	78.0	43.3	43.5	40.1	42.3	71.2
Available for FT work (N)	1704	1566	1592	4862	397	347	394	1138	6000
Bachelor Degree - Engineering									
Working FT (%)	88.3	84	86.7	86.4	51.1	39.5	40.5	43.6	80.8
Available for FT work (N)	2708	2455	2652	7815	372	334	467	1173	8988
Bachelor Degree – All Disciplines									
Working FT (%)	79.3	76.6	76.8	77.5	50.9	46.4	43.2	46.7	46.7
Available for FT work (N)	39174	39448	41506	120128	4194	4268	4675	13137	13137

Source: Hawthorne, L & To, A (2014), 'Employer Response to the Study-Migration Pathway: The Australian Evidence 2007-2011', *Highly Skilled Migration: Policies, Processes and Politics*, Special Issue, *International Migration*, 52(3).

Finally, the latest skilled migration data to 30 June 2014 were accessed to examine where Australian employers choose to select skilled migrants, given their unprecedented power at this time. A clear preference to find medical, science and engineering graduates offshore was evident, prevailing in the temporary as well as permanent skilled migration categories. From 2008-09 to 2013-14, for example, around a third of permanent skilled migrants were selected onshore, including 29% of doctors, 35% of engineers, 37% of IT professionals and 49% of scientists. Onshore selection was more common for

temporary sponsored workers, but poor in over-subscribed international student fields. For example 58% of scientists were sourced onshore, compared to 40% of engineers, 35% of doctors, but just 22% of IT professionals^{xi}.

As demonstrated by the above analysis, following 15 years of experimentation with the study-migration pathway, former international students hold significant attraction for Australian employers. At the same time employers prize a level of professional experience, advanced English language ability, and university qualifications in high-demand fields. Since 2007 successive Australian governments have fine-tuned the study-migration pathway to deliver this. Competitor countries have monitored Australia's policy trajectory closely.

ⁱ I would like to acknowledge that this paper draws on a range of recent studies by the author as follows: Hawthorne, L (2014), 'Indian Students and the Evolution of the Study-Migration Pathway in Australia', *International Migration*, 52(2); Hawthorne, L & To, A (2014), 'Employer Response to the Study-Migration Pathway: The Australian Evidence 2007-2011', *Highly Skilled Migration: Policies, Processes and Politics*, Special Issue, *International Migration*, 52(3); Hawthorne, L (2012), 'Designer Immigrants? International Students and Two-Step Migration', Chapter 23 in *The Sage Handbook of International Higher Education*, ed. D Deardorff, D de Witt, T Adams & J Heyl, Sage, New York; Hawthorne, L (2010), 'Demography, Migration and Demand for International Students', Chapter Five in *Globalization and Tertiary Education in the Asia-Pacific – The Changing Nature of a Dynamic Market*, ed C Findlay and W Tierney, World Scientific Press, Singapore; and Hawthorne, L (2010), 'How Valuable is "Two-Step Migration"? Labour Market Outcomes for International Student Migrants to Australia', Special Edition, *Asia-Pacific Migration Journal*, Vol 19 No 1.

ⁱⁱ Geoba (2014), 'The World Total Fertility Rate 2014', <http://www.geoba.se/population.php?pc=world&type=10&year=2014&st=rank&asde=&page=3>, accessed 12 October 2014.

ⁱⁱⁱ Institute of International Education (2013), 'Open Doors Data Fast Facts, 2013', <http://www.iie.org/Research-and-Publications/Open-Doors/Data/Fast-Facts>, accessed 14 October 2014.

^{iv} MacGregor, K (2012) "National Policies 'Massively' Influence Mobile Student Decisions", University World News Global Edition, Issue 224, 3 June, <http://www.universityworldnews.com/article.php?story=2012>.

^v Howson, C (2014), 'Drop in Foreign Student Numbers: Are UK Universities Too Complacent?', 4 April, <http://www.theguardian.com/higher-education-network/blog/2014/apr/04/drop-oreign-student-numbers-uk-universities-too-complacent>, accessed 14 October 2014.

^{vi} Picot, G, Feng, H, and Coulombe, S (2007) 'Chronic Low-Income and Low-Income Dynamics Among Recent Immigrants', Analytical Studies Research Papers, Catalogue No 11F0019MIE, No 294. Ottawa: Statistics Canada.

^{vii} Vertovec, S (2002), 'Transnational Networks and Skilled Labour Migration', *Compas Working Paper*, University of Oxford, p. 13.

^{viii} Hawthorne, L (2012), 'Designer Immigrants? International Students and Two-Step Migration', Chapter 23 in *The Sage Handbook of International Higher Education*, ed. D Deardorff, D de Witt, T Adams & J Heyl, Sage, New York.

^{ix} Matthews, C (2007), 'Foreign Science and Engineering Presence in US Institutions and the Labor Force', Congressional Research Service Report for Congress, June 21, Washington, p. 17.

^x National Science Foundation (2014), *National Science Foundation Indicators*, National Science Foundation, Washington DC.

^{xi} National Science Foundation (2008), *Science and Engineering Indicators 2008*, Washington DC, pp. 3–52.

^{xii} Martin, P & Ruhs, M (2010), *Labour Shortages and US Immigration Reform: Promises and Perils of An Independent Commission*, Centre on Migration, Policy and Society, Working Paper No. 81, University of Oxford, Oxford p. 1.

^{xiii} Sumption, M & Bergeron, C (2013), "Remaking the US Green Card System: Legal Immigration Under the Border Security, Economic Opportunity, and Immigration Modernization Act of 2013", Migration Policy Unit Issue Brief No 6, June, Washington DC pp. 1-2.

^{xiv} Citizenship and Immigration (2013), 'Facts and Figures 2013', annual summary of immigration arrivals data (all categories), Ottawa.

-
- ^{xv} Salt, J (2011) 'International Students and the Labour Market', in T. Madood and J. Salt (eds.), *Global Migration, Ethnicity and Britishness*, Palgrave MacMillan, London, p. 132.
- ^{xvi} Tabuchi, H (2011), 'Japan Keeps a High Wall for Foreign Labour', *New York Times*, New York, 2 January.
- ^{xvii} OECD (2013), *International Migration Outlook 2013 – SOPEMI Report*, OECD, Paris.
- ^{xviii} In the context of Australia's economic and mining boom, these points were later extended to include diploma and certificate level qualifications, including a wide range of trades.
- ^{xix} Birrell, B, Hawthorne, L & Richardson, S (2006), *Evaluation of the General Skilled Migration Categories*, Commonwealth of Australia, Canberra, 2006, 306pp, <http://www.immi.gov.au/media/publications/research/gsm-report/index.htm>.
- ^{xx} Access Economics Pty Ltd, (2009), *The Australian Education Sector and the Economic Contribution of International Students*, Australian Council for Private Education and Training, Melbourne.
- ^{xxi} Healy, G (2010), 'Racist Proposal Slammed', *The Australian Higher Education Supplement*, 21 July 2010, p 24.
- ^{xxii} Institute of International Education (2013), 'Open Doors 2012/13 Fast Facts', accessed 18 October. <http://www.iie.org/Research-and-Publications/Open-Doors>.
- ^{xxiii} Baas, M (2007), 'The Language of Migration: The Education Industry versus the Migration Industry', *People and Place*. 15(2), p. 50; Baas, M (2010), *Imagined Mobility: Migration and Transnationalism Among Indian Students in Australia*, Anthem Press, UK & US.
- ^{xxiv} See eg Birrell, B (2006), 'Implications of Low English Standards Among Overseas Students at Australian Universities', *People and Place*, Vol 14 no 4; Watty, K (2007), 'Quality in Accounting Education and Low English Language Standards Among Overseas Students: Is There A Link?', *People & Place*, Vol 15 No 1; Hawthorne, L (2007), *Language, Employment and Further Study*, Commissioned Discussion Paper for Australian Education International, Department of Education, Science and Training, www.aei.dest.gov.au, Commonwealth of Australia; Arkoudis, S, Hawthorne, L, Baik, C, Hawthorne, G, O'Loughlin, K, Bexley, E & Leach, D (2009), *The Impact of English Language Proficiency and Workplace Readiness on the Employment Outcomes of Tertiary International Students*, Department of Employment, Education and Workplace Relations, Canberra.
- ^{xxv} Department of Immigration and Citizenship (2007), 'Changes to General Skilled Migration (GSM) – Frequently asked Questions', DIAC website, Australian Government, Canberra.
- ^{xxvi} Australian Education International, (2008), Unpublished international student enrolment data 2002-2008 provided to and analysed by the author and G Hawthorne.
- ^{xxvii} Das, S, (2009), 'Millions Trump Truth About Dodgy Schools', *The Age*, 29 July 2009, p. 15.
- ^{xxviii} Baird Review (2010), *Review of the Education Services for Overseas Students (ESOS) Act 2000: Stronger, Simpler, Smarter ESOS: Supporting International Students*, Department of Education Employment and Workplace Relations, Canberra, pp 1-2, 7-9.
- ^{xxix} Arkoudis, S, Hawthorne, L, Baik, C, Hawthorne, G, O'Loughlin, K, Bexley, E & Leach, D (2009), *The Impact of English Language Proficiency and Workplace Readiness on the Employment Outcomes of Tertiary International Students*, Department of Employment, Education and Workplace Relations, Canberra, http://aei.gov.au/AEI/PublicationsAndResearch/Publications/ELP_Full_Report_pdf.pdf.
- ^{xxx} Department of Immigration and Citizenship (2010), 'Review of the General Skilled Migration Points Test – Discussion Paper', 15 February, Canberra.
- ^{xxxi} Department of Immigration and Citizenship (2009), *Future Skills: Targeting High Value Skills Through the General Skilled Migration Program – Review of the Migration Occupations in Demand List*, Issues Paper No. 2, September, Department of Education, Employment and Workplace Relations and Department of Immigration and Citizenship, Canberra, p. 4.
- ^{xxxii} According to the Department of Immigration and Citizenship (February 2010), first priority in processing would be given to employer sponsored GSM applicants (including under the Regional Sponsored Migration Scheme). Second priority would be given to applicants 'nominated by a state/territory government agency under a state migration plan agreed to by the minister', while third priority would be for 'applications from people who are nominated by a state/territory government agency and whose nominated occupation is on the Critical Skills List' – since July 2010 the Skilled Occupations List. See Department of Immigration and Citizenship (2010), 'Changes to Priority Processing', 8 February, <http://www.immi.gov.au/skilled/general-skilled-migration/pdf/fag-gsmchanges.pdf>.
- ^{xxxiii} Department of Immigration and Citizenship (2010), 'Review of the General Skilled Migration Points Test –

Discussion Paper', 15 February, Canberra, p. 3.

^{xxxiv} Department of Immigration and Citizenship (2010), 'Review of the General Skilled Migration Points Test – Discussion Paper', 15 February, Canberra, p. 6-7.

^{xxxv} Department of Immigration and Citizenship (2010), 'Review of the General Skilled Migration Points Test – Discussion Paper', 15 February, Canberra, p. 8.

^{xxxvi} Ross, J (2010), 'It's Hello Small Australia as India Says Goodbye', *Campus Review*, Vol 21 No 15, 3 August, p 1; 'Most International Students Go Home', *Campus Review*, Vol 21 No 15, 3 August, p 4; 'Fortress Australia Debate the Latest Blow to Enrolments'. *Campus Review*, Vol 21 No 15, 3 August, p. 6.

^{xxxvii} Australian Education International (2010), 'Monthly Summary of International Student Enrolment Data – Australia, YTD July 2010', Department of Education, Employment and Workplace Relations, September.

^{xxxviii} Department of Immigration and Citizenship (2010), 'Introduction of a New Points Test', <http://www.immi.gov.au/skilled/general-skilled-migration/pdf/points-fact.pdf>, accessed 27 December 2010.

^{xxxix} Hawthorne, L & To, A (2014), 'Employer Response to the Study-Migration Pathway: The Australian Evidence 2007-2011', *Highly Skilled Migration: Policies, Processes and Politics*, Special Issue, *International Migration*, 52(3).

^{xl} Department of Immigration and Border Protection (2014), Unpublished permanent and temporary skilled migrant arrivals data by field and applicant source country, provided to L Hawthorne for analysis (September 2014).