

The Growing Global Demand for Students as Skilled Migrants

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About the Transatlantic Council on Migration

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Executive Summary

International student education is a large, growing, and lucrative industry in many developed countries. Students not only help to maintain domestic institutions' competitiveness, they also represent a valuable pool of skilled immigrants for governments wishing to recruit "tried and tested" individuals into their labor forces.

Young and educated, former international students can help to offset some of the effects of demographic decline in developed nations. They are also more likely to overcome many of the problems that beset immigrants arriving directly from abroad as they are presumed to have advanced host-country language skills, training, or experience relevant to the domestic labor market. In addition, local employers can better value and understand their credentials in contrast to those of immigrants admitted through points-based immigration systems, which do not distinguish between institutions of varying quality.

It is not surprising, therefore, that Organization for Economic Cooperation and Development (OECD) countries are innovating widely with policies to attract and retain international students. Several nations have set targets for their enrollment, changing immigration policies to allow students to enter the country more easily. Governments have modified visa conditions to allow simpler and more certain transition from student to worker status. Many countries' universities now offer bachelor's and master's degrees taught exclusively in English — the international language of science and business. Finally, countries have actively promoted their educational institutions in targeted source regions. Many have waived fees while also making it easier for students to work during their studies.

International students are not a skilled-migration panacea, however. First, their flows can be volatile. New Zealand, for example, experienced a dramatic surge in students from China from 1998 to 2004, but the flow suddenly contracted in favor of Australia, the United States, and a growing range of European Union (EU) nations. Second, transformations in traditional source countries' own tertiary-education sectors provide an increasingly attractive option for individuals who might otherwise have sought further education abroad. Third, there is growing competition *between* developed countries for students in a global environment where delays or uncertainty in the visa process intensify the risk of students enrolling elsewhere. Fourth, some doubts have recently been cast over former students' perceived "work readiness" in the host country. In some cases, their language ability and quality of training has not been as high as expected, and although their employment rates remain strong, their earnings, job satisfaction, and use of skills may lag behind those of immigrants arriving directly from abroad.

The emerging global economic crisis seems certain to constrain international students' study locations in the coming decade. Currency values, access to transnational education at home, and the perceived value of alternative global study sites will influence their decisions. At the same time, OECD workforces are inexorably aging and the demands of knowledge economies remain high. Study-migration pathways are therefore likely to remain highly attractive to OECD governments, who will compete to attract and keep "the best" international students.

I. The Context

International Student Flows

In the global “race for talent,” international students have emerged as a priority human capital resource and one highly acceptable to host-country employers. Several characteristics make students attractive employees: they are young; they are expected to possess advanced host-country language ability; they have relevant professional training or experience, supported by significant acculturation; and their credentials are easy to recognize fully and immediately. From the government point of view, they are attractive because they have funded themselves to complete a domestic qualification aligned with the human capital requirements of local employers.

The potential pool of international students for migration is large and growing. By 2005, 2.7 million higher-education students were enrolled abroad, compared to just 600,000 in 1975.¹ Demand is predicted to rise to 7.2 million students by 2025² — a highly lucrative trend for host countries. To date, OECD countries remain the destinations of choice, attracting 85 percent of international students with an industry generating US\$32.9 billion in revenue in 2005. The United States and the United Kingdom secured the lion’s share of earnings that year, with US\$14.5 billion and US\$10.5 billion, respectively. Australia followed closely with US\$8.5 billion generated in 2007.³

The Asia-Pacific region, home to two-thirds of the world’s population, is the primary student source. Many Asian countries have adopted “open education market policies to raise (...) national competitiveness and to actualize personal achievement.”⁴ Students from China and India now dominate, notwithstanding the strength of EU flows and France’s sustained attractiveness to students from francophone Africa and Quebec. By 2006, China had become the primary or secondary source of international students to many countries, including Japan (74,292 students), Australia (63,543), the United States (62,582), the United

¹ Young-Chul Kim, “The Asia-Pacific education market and modes of supply,” in *The Asia-Pacific education market*, eds. William Tierney and Christopher Findlay (Singapore: National University of Singapore Publishing, forthcoming 2009). See also Organization for Economic Cooperation and Development, *Education at a Glance: OECD Indicators 2007* (Paris: OECD, 2007).

² Anthony Bohm, *Global Student Mobility 2025: Analysis of Global Competition and Market Share* (Canberra: IDP Education Australia, 2003).

³ US earnings estimate published in Institute of International Education, *International Students in the United States* (Washington, DC: IIE, November 2007). Other earnings data derived from International Center for Migration Policy Development, *Comparative Study on Policies towards Foreign Graduates: Study on Admission and Retention Policies towards Foreign Students in Industrialised Countries* (Vienna: ICMPD, October 2006); and IDP Education Australia, “Education replaces tourism as Australia’s no. 1 services export” (news release, February 5, 2008), http://www.idp.com/about_idp/media/2008/february/tourism_no_1_services_export.aspx. The amounts provided represent revenue generated rather than profit. They were converted to US dollars based on currency converter rates sourced December 25, 2008. The original published revenue amounts earned were €23.5 billion in 2005 by OECD countries, €7.5 million earned by the United Kingdom in 2005, and A\$12.5 billion earned by Australian in 2007 (at a time when the value of the A\$ comparative to the US\$ was far higher than the current rate).

⁴ Young-Chul Kim, “The Asia-Pacific education market,” 2.

Kingdom (50,755), Germany (27,390), and New Zealand (26,546) (see Table 1).⁵ These flows developed quickly: between 2000 and 2006, the number of Chinese international students in France rose from just over 2,100 to almost 16,000 and from about 6,000 to more than 27,000 in Germany. In Canada, the number rose from 1,000 to over 10,000 between 1997 and 2002.

According to a recent UK study, there are now four major categories of education suppliers (see Table 2):⁶

- Major players — United States, United Kingdom, and Australia
- Middle powers — Germany and France
- Evolving destinations — Japan, Canada, and New Zealand
- Emerging contenders — China, Singapore, and Malaysia

The governments of the first three groups actively cultivate students for skilled migration.⁷ In particular, they monitor and replicate successful competitor models, develop migration categories designed to attract and retain skilled workers, expand temporary entry options, and combine government-driven (supply) with employer-driven (demand) strategies.

Further, governments have facilitated students' transition from temporary to extended or permanent-resident stay with priority processing in uncapped migration categories. In general, this type of policy initially applied in certain fields only —such as science, engineering, business, and health — but governments have expanded the number of eligible fields. Many have liberalized definitions of “skilled” in a context where aging and in some cases contracting domestic populations may be unwilling or unable to undertake select vocational and agricultural work. Others have created regional settlement incentives for skilled migrants based on reduced entry requirements and enhanced policy input from local governments or employers. Finally, governments have supported all of these initiatives through sustained and increasingly innovative global promotion strategies.

⁵ Veronica Lasanowski and Line Verbik, *International Student Mobility: Patterns and Trends* (London: The Observatory on Borderless Higher Education, 2007).

⁶ Lasanowski and Verbik, *International student mobility*.

⁷ Leslyanne Hawthorne, “Demography, migration and international students,” in *The Asia-Pacific education market*, eds. William Tierney and Christopher Findlay (Singapore: National University of Singapore Publishing, forthcoming 2009). This paper was in part researched while based at the OECD's International Migration Division.

Table 1. Top 10 Sources for International Students by Select Host Country, 2006

United States (2006)	United Kingdom (2005-2006)	Australia (2006)	Germany (2006)	Japan (2006)
India (76,503) China (62,582) S. Korea (58,847) Japan (38,712) Canada (28,202) Taiwan (27,876) Mexico (13,931) Turkey (11,622) Germany (8,829) Thailand (8,765)	China (50,755) India (19,205) Greece (17,675) Ireland (16,790) US (14,755) Germany (13,265) France (12,455) Malaysia (11,450) Nigeria (9,605) Hong Kong (9,455)	China (63,543) India (36,078) Malaysia (18,074) Hong Kong (16,558) Indonesia (13,025) S. Korea (12,352) US (11,901) Thailand (10,934) Japan (9,110) Singapore (8,906)	China (27,390) Turkey (22,419) Poland (15,183) Bulgaria (12,794) Russia (11,953) Ukraine (8,671) Morocco (8,213) Italy (6,701) France (6,074) Austria (5,930)	China (74,292) S. Korea (15,974) Taiwan (4,211) Malaysia (2,156) Vietnam (2,119) US (1,790) Thailand (1,734) Indonesia (1,553) Bangladesh (1,456) Sri Lanka (1,143)

Source: Adapted from Veronica Lasanowski and Line Verbik, *International Student Mobility: Patterns and Trends* (London: The Observatory on Borderless Higher Education, 2007).

Table 2. Primary Global Destinations for International Students by 2006

Top destination countries	International students enrolled in higher/ vocational education	World market share
1. United States	565,000 (2006)	22%
2. United Kingdom	330,000 (2005-2006)	12%
3. Australia	281,633 (2005-2006)	11%
4. Germany	248,000 (2006)	10%
5. France	201,100 (2006)	10%
6. China	141,000 (2005)	7%
7. Japan	118,000 (2006)	5%
8. New Zealand	42,700 (2006)	3%
9. Singapore	66,000 (2005)	2%
10. Malaysia	55,000 (2006)	2%

Source: Adapted from Lasanowski and Verbik, *International student mobility*.

II. The Link between Export Education and Skilled Migration

Students have emerged as a key human resource for several reasons. These factors cited below form the foundation of their growing attractiveness to host governments and employers.

Demographic Contraction

First, since students are young, they can help counterbalance the sustained demographic decline that affects the majority of developed nations. Fertility rates are below replacement level in Australia (1.8), the United Kingdom (1.8), and Canada (1.5), with baby boomer retirements certain to intensify labor-market impacts. Countries with traditionally high birth

rates are contracting while others are approaching free fall: fertility is as low as 1.3 in Germany, Italy, Spain, and the Czech Republic, and 1.1 in the Republic of Korea.⁸

This fertility revolution is being replicated across Asia, where overall annual population growth is predicted to halve from 2.1 to 1.0 percent. Between 1970 and 2006, for instance, Indonesia's fertility rate dropped from 5.1 to 2.4, China's from 4.9 to 1.6 (0.9 in Shanghai), and Thailand's from 5.0 to 1.7.⁹ In Japan, where the fertility rate is 1.3, politicians have recently called for dramatic immigration growth to avert demographic atrophy, including lifting migrants' population ratio to 10 percent within 50 years, which would mean 10 million people — a fivefold increase over the current 2.08 million immigrants. Such measures are advocated to revitalize the nation and maintain productivity, defined as “the most effective way to counter the labor shortage Japan is doomed to face amid a decreasing number of children.”¹⁰ Without significant migration, Japan is set to experience a 70 percent population reduction in 40 years, with more than 40 percent of citizens age 65 and older.¹¹

Migration is similarly attractive to the government of Quebec:

*Population growth in Quebec is slowing and the population is aging markedly and rapidly. The foreseeable impact of these trends is striking, i.e. a decline in total population, a marked reduction in the working-age labor force, manpower scarcity, a slowdown in economic growth, increased pressure on public finances, and a decline in Quebec's relative weight in Canada. While immigration is not a panacea, it can, combined with other initiatives, help to mitigate such impact, especially by delaying the onset of population decline and slowing the reduction in the working-age labor force.*¹²

Former Students' Perceived Work Readiness Compared to Other Migrants

In addition to youth, former international students are deemed to have few of the work-readiness barriers associated with developing-country migrants who experience longer delays in finding employment. Two brief Asia–Pacific case studies demonstrate this problem.

As early as 2001, Canada and Australia depended on migration for half to one-third of all professional workers, most notably in the fields of engineering, information technology (IT), medicine, accounting, and architecture/building (see Table 3). By 2012, Canada estimates that 100 percent of net growth in all professions will be migration dependent.¹³ In recent years, both Canada and Australia have addressed workforce supply by prioritizing skilled migration and diversifying immigrant-source countries. Each country has used points

⁸ OECD, *Health at a Glance: OECD Indicators 2007* (Paris: OECD, November 2007).

⁹ Graeme Hugo, “Demographic Change in East and Southeast Asia and the Implications for the Future” (presentation to the 17th General Meeting of the Pacific Economic Cooperation Council, Sydney, May 1-2, 2007).

¹⁰ Minoru Matsutani, “Radical immigration plans under discussion,” *The Japan Times*, June 19, 2008; Justin Norrie, “Drastic rise in Japan's migrant intake urged,” *The Age*, June 17, 2008.

¹¹ *Ibid.*

¹² Immigration et Communautés culturelles Québec, *Summary of the Consultation Document Respecting Planning for 2008-2010 Quebec Immigration Levels* (Montreal: Government of Quebec, June 2007), 3.

¹³ Diane Finley, Minister of Citizenship and Immigration Canada, keynote speech at National Foreign Credential Recognition Conference, Conference Board of Canada, Calgary, April 22, 2008, https://secure.conferenceboard.ca/LRI/conference/presentations/Minister_Finley.pdf.

systems intended to improve selection objectivity while maximizing employment outcomes. Also, Canada and Australia have enhanced the scope for “two-step” migration by which migrants transition from temporary to permanent resident status.

Prioritizing skilled migration has often failed to deliver the desired results, however. In Canada, the recent primary source countries for “skilled workers” in the economic migrant category have been China, India, the Philippines, Pakistan, and Romania — nations associated with poorly resourced education systems and often disappointing employment outcomes in Canada. Although Canadian employers show a strong preference for workers from the United States, United Kingdom, France, and Australia (in employer-sponsored temporary programs), Canadian government selection to date has treated all degrees as equal, regardless of likely domestic recognition levels. Host-country language ability has not been independently screened. Consequently, large numbers of skilled migrants have been admitted to Canada with limited English or French fluency, unrecognized qualifications, and training in fields associated with low labor-market demand.¹⁴

The result for many who entered Canada through its points system has been underemployment and unemployment. The latest available data show economic migrants to be “the new face of the chronically poor” in Canada, securing inferior employment outcomes compared to family-category migrants and taking up to 28 years to secure wage parity with comparably qualified Canadians if they do so at all (see Table 4).¹⁵

¹⁴ Ana Ferrer, David Green, and W. Craig Riddell, “The effect of literacy on immigrant earnings” (Statistics Canada paper, Catalogue No. 89–552–MIE, No 12, 2004); Daniel Hiebert, “Skilled immigration in Canada: context, patterns and outcomes,” in *Evaluation of the General Skilled Migration Categories*, eds. Bob Birrell, Leslyanne Hawthorne, and Sue Richardson (Canberra: Australian Department of Immigration and Citizenship, 2006); Arthur Sweetman, “Immigrant Source Country Educational Quality and Canadian Labour Market Outcomes” (draft paper, Research Paper Series, Statistics Canada, 2005).

¹⁵ A very substantial literature has emerged on the deteriorating labor market outcomes of economic category immigrants in Canada. See for example, Garnett Picot, Hou Feng, and Simon Coulombe, “Chronic Low Income and Low-income Dynamics Among Recent Immigrants” (Analytical Studies Research Papers, Statistics Canada Research Paper Series, Catalogue No. 11F0019MIE, no. 294, 2007), 5-6, <http://www.statcan.ca/english/research/11F0019MIE/11F0019MIE2007294.pdf>; Daniel Hiebert “Skilled Immigration in Canada: Context, Patterns and Outcomes”, chapter 4 in *Evaluation of the General Skilled Migration Categories*, Bob Birrell, Leslyanne Hawthorne, and Sue Richardson (Commonwealth of Australia, Canberra, 2006).

Table 3. The Proportion of Migrant Professionals in Australia and Canada by Select Field, 2001

Professional Field	Australia Foreign Born	Canada Foreign Born
Engineering	48%	50%
Computing	48%	51%
Medicine	46%	35%
Science	37%	36%
Commerce/business	36%	27%
Architecture	36%	49%
Accountancy	36%	35%
Arts/humanities	31%	24%
Nursing	24%	23%
Teaching	20%	15%

Source: Leslyanne Hawthorne, "The impact of economic selection policy on labour market outcomes for degree-qualified migrants in Canada and Australia," *IRPP Choices* 14, no. 5 (2008). Based on 2001 Census data for Canada and Australia.

Table 4. Employment Outcomes for Degree-Qualified Migrants (1996–2001 arrivals) in Canada, 2001

Arrival Date	Source Country	Own Profession	Other Prof/Management	Any work S/Total	Unemployed	Not in Laborforce	Number
	Canada	33.6	27.5	84.7	3.9	11.4	1,888,276
1996/2001	South Africa	39.5	30.5	86.6	5.2	8.2	1992
	Australia/New Zealand	29.9	36.5	80.0	6.3	12.1	855
	USA	26.5	31.0	76.1	5.3	18.6	5696
	UK/Ireland	25.8	37.3	83.2	5.5	11.3	4219
	North West Europe	25.0	33.8	80.0	7.9	12.1	8701
	HK/Malaysia/Singapore	19.1	22.1	65.1	11.2	23.8	6436
	Central & South Americas	17.9	19.0	68.1	13.8	18.1	11803
	Eastern Europe	17.7	22.6	70.5	13.8	15.7	31622
	South Eastern Europe	16.0	20.1	67.3	16.7	16.1	6710
	China (exc. Taiwan)	14.9	20.7	58.3	18.7	23.0	48952
	Other Middle E/N Africa	14.3	19.1	56.6	21.2	22.2	16059
	India	12.2	18.9	71.5	12.8	15.7	29059
	Other South/Central Asia	11.5	16.8	60.5	16.6	23.0	35659
	Taiwan	10.3	18.0	44.9	14.5	40.6	7955
	Iraq	8.8	15.5	50.6	20.7	28.7	2116
	Philippines	8.3	10.3	77.1	9.1	13.8	17869
	Other	15.5	21.6	65.0	14.8	22.9	22010
	TOTAL MIGRANT						257714

Source: Leslyanne Hawthorne, "The impact of economic selection policy on labour market outcomes for degree-qualified migrants in Canada and Australia," *IRPP Choices* 14, no. 5 (2008). Based on 2001 Census data for Canada and Australia.

Given evidence of similar trends in Australia, economic applicants at risk of delayed or deskilled employment have been refused admission since 1999 through the use of mandatory premigration English screening, credential assessment, analysis of labor-market demand, and the allocation of bonus points to former international students with Australian qualifications.¹⁶ This process has ensured immigrants' growing workforce participation. Australia's 2006 economic-migration review, the most extensive since 1988, affirmed the effectiveness of these initiatives in delivering *immediate* labor-market outcomes: 83 percent of skilled migrants secured work within six months, with substantial numbers rewarded by unprecedented remuneration. Fine-tuning measures introduced since September 2007 include enhanced English language ability and a stronger focus on former students' Australian work experience.

A key attraction of former students is thus their perceived work readiness, in contrast to overseas-qualified migrants recruited from developing countries. Students have funded their own education to fit host-country requirements, in a context where governments frame immigration policy, but employers retain the power to offer or withhold work. The recruitment of foreign students can minimize skills discounting — underemployment or skilled migrants accepting positions below their qualification level. Research evidence from the past 20 years demonstrates that migrants' early employment outcomes are powerfully mediated by their place of training, age on arrival, language ability, and credential recognition.¹⁷

Differential Quality of Training Systems

When host-country employers and regulatory bodies are consistently wary of foreign systems, *where* migrants receive their education is critical to their employment outcomes. Employer and government caution is often justified. Global rankings confirm that marked differences exist between the caliber of tertiary sectors in developed and developing nations, correlated with length of academic tradition and the level of resources.¹⁸ As demonstrated by a recent United Nations Educational, Scientific and Cultural Organization (UNESCO) study, many countries still lack regulatory bodies and quality-assurance systems. In the Philippines, for instance, higher-education quality assurance remains voluntary rather than mandatory,

¹⁶ Australian Department of Immigration and Multicultural Affairs, *Review of the Independent and Skilled-Australian Linked Categories* (Canberra: Department of Immigration and Multicultural Affairs, 1999).

¹⁷ For detail on these issues for Canada and Australia, including by professional field, see Leslyanne Hawthorne, *Migration and Education: Quality Assurance and Mutual Recognition of Qualifications – Nine Country Overview Report* (Paris: UNESCO, 2008).

¹⁸ In 2006, the Shanghai Jiao Tong University ranking system (viewed as relatively unbiased) produced a list of the top 500 world universities. About two-fifths were in Europe (particularly northwest Europe, including 43 in the United Kingdom and 40 in Germany). Almost two-fifths again were in the Americas (the vast majority in the United States, but also 22 in Canada and just 7 in Central or South America). The Asia-Pacific region had fewer, with 92 of the 500 top universities. Another four were in South Africa and one in Egypt, with no other African or Middle Eastern countries listed. By August 2008, just two Indian institutes were still featured in the Shanghai Jiao Tong top 400 (ranked 301-400); Chinese universities were making rapid gains (17 institutions in the top 500, along with five based in Hong Kong). See Jiao Tong University, *Academic Ranking of World Universities 2005* (Shanghai: Institute of Higher Education, Jiao Tong University, August 2006); Jiao Tong University, "2008 Academic ranking of world universities: top 500," [http://www.arwu.org/rank2008/ARWU2008_A\(EN\).htm](http://www.arwu.org/rank2008/ARWU2008_A(EN).htm).

and only 221 out of a total 1,943 institutions participate, with just 19 percent of higher education programs currently covered.¹⁹

Migrants originating from such developing countries can offset their educational disadvantage by studying abroad. For many, international study will become phase one of a global career trajectory.

III. The Evolution of Former Students as a Skilled-Migration Resource

International Graduate Students in the United States

The United States pioneered the link between international study and skilled migration in the post-World War II era. US policy has long focused on attracting and retaining foreign doctoral students. In 2006, the United States remained the premier global destination, with 565,000 international students enrolled in 4,000 accredited institutions. By 2006-2007, export education had become the United States' fifth-largest industry, with 46 percent of these students in graduate degrees: 108,000 in doctoral programs and over 122,000 in master's degree programs.

The United States has doubled its global share of doctoral students to 28 percent in the past two decades.²⁰ As early as a decade ago, international students constituted 24 percent of US graduate program enrollments, more than double the rate in 1976. Much higher levels prevail in select fields. In 2000, foreign students accounted for 51 percent of all doctorates awarded in engineering, 37 percent in the physical sciences, and 26 percent in the life sciences.²¹ Overall, the proportion of international students enrolled in US science and engineering graduate degrees increased from 20 percent to 25 percent from 1985 to 2005, with the highest concentrations in engineering (45 percent of all students), computer sciences (43 percent), physical sciences (40 percent) and mathematics (37 percent). Following the post-9/11 enrollment dip from 2002-2005, the 2006-2007 period has been associated with rapid renewed growth, the latest available data from US Immigration and Customs Enforcement confirming this to be strongest for computer sciences (14 percent) and engineering (10 percent) courses.²²

Evidence reveals that international students in the United States are typically able to find employment quickly during and after their studies (a trend that economist George Borjas,

¹⁹ Lesleyanne Hawthorne, *Migration and Education*; Ethel Agnes Valenzuela and Rodriguez Caoili-Rodriguez, *Migration and Education: Quality Assurance and Mutual Recognition of Qualifications – The Philippines* (Paris: UNESCO, 2008).

²⁰ Simon Marginson and Marijk van der Wende, "Globalisation and higher education" (Education Working Paper No 8, Directorate for Education, OECD, 2007).

²¹ See George Borjas, "An evaluation of the foreign student program" (Harvard University KSG Working Paper No. RWPO2-026, July 2002); Mark Regets, *Research and policy issues in high-skilled International Migration: A Perspective with Data from the United States* (Washington, DC: National Science Foundation, 2007); National Science Foundation, *Science and Engineering Indicators 2008* (Washington, DC: National Science Foundation, 2008).

²² National Science Foundation, *Science and Engineering Indicators 2008* (Washington, DC: National Science Foundation, 2008, p 2-21-22).

among others, views as contentious).²³ Furthermore, according to the National Science Foundation, the “availability of foreign students may allow many graduate departments to expand or maintain graduate programs. In other cases, foreign students may allow more elite programs to maintain very high standards by choosing among the best of both foreign and native applicants.” These situations occur in a context where “graduate programs are also important sources of new knowledge and research” and where student participation boosts the US competitive advantage in the production of knowledge, goods, and services.²⁴

After receiving PhDs, many international students move seamlessly into postdoctoral work, accepting positions eschewed by US graduates due to poor remuneration and long tenure-track requirements. In terms of workforce supply, employers deem their presence to be vital. US employer groups unsuccessfully lobbied Congress in 2008 to automatically provide green cards (permanent resident status) to all international students holding US doctoral degrees. Recent studies estimate that 85 to 95 percent of Indian and Chinese doctoral graduates stay for up to five or more years, many making substantial contributions to the biomedical and health sciences.²⁵

International Graduate Students in Australia

Former international students have emerged as a similarly important resource for skilled migration to Australia. As early as 1995, a study showed migration to be the primary enrollment motivation for 78 percent of international students from China, 64 percent from Hong Kong, 48 percent from the Philippines, 46 percent from Fiji/Pacific Islands, and 43 percent from Malaysia and Singapore. This was despite a three-year eligibility bar that remained in place until 1999 (requiring students to wait three years after graduation before they were eligible to apply to migrate back to Australia).²⁶ By 2002, former students already constituted over 50 percent of skilled-migrant applications — a “win-win” situation for Australia, leading to both improved employment outcomes and a lucrative 30 percent surge in demand for Australian tertiary courses.

China led this growth in student demand (with an increase of 77 percent), followed by Hong Kong, Singapore, the United States, Malaysia, Thailand, Japan, and Korea.²⁷ By October 2008, international student enrollments had risen to 474,389 across all education sectors in Australia, providing a rich migration resource. At the same time, a growing number of such

²³ Scholars and policymakers continue to debate the extent to which former international students displace domestic students from select postgraduate courses, diminish their access to doctoral scholarships, and depress US wages and opportunities in postdoctoral research sectors. George Borjas has been a prominent contributor to this analysis.

²⁴ Regets, *Research and Policy Issues in High-Skilled International Migration*, 17.

²⁵ See for example, Michael Finn, *Stay Rates of Foreign Doctorate Recipients from US Universities: 2005* (Oak Ridge, TN: Oak Ridge Institute for Science and Education, 2007); Sergio Diaz-Briquets and Charles C. Cheney, “Foreign Scientists at the National Institutes of Health: Ramifications of US Immigration and Labor Policies,” *International Migration Review* Vol. 37, No. 2, (2003).

²⁶ Drew Nesdale, *International Students and Immigration* (Canberra: Australia Government Publishing Service, 1995); Jing Shu and Lesleyanne Hawthorne, “Asian student migration to Australia,” *International Migration Quarterly Review* 34, no. 1 (1996).

²⁷ Tim Colebatch, “Migration quota may rise again,” *The Age*, January 19, 2002.

students transitioned to permanent resident status²⁸ (see Table 5). As early as 2004, 66 percent of all students from India and 38 percent of students from China migrated.²⁹ As demonstrated by Table 6, between 2005-2006 and 2007-2008, a further 21,858 students from China or Hong Kong and 13,342 Indian students became skilled migrants immediately on course completion — far exceeding those from other source countries in a period when 64,789 students became skilled migrants in all.

Table 5. Total International Student Enrollments in Australia, August 2008

Nationality	Enrollments	Percent of total	Growth since August 2007
China	112,172	23.6%	18.8%
India	80,291	16.9%	47.4%
Republic of Korea	31,667	6.7%	3.6%
Malaysia	20,449	4.3%	6.3%
Thailand	18,564	3.9%	9.8%
Hong Kong	16,827	3.5%	-5.0%
Nepal	14,605	3.1%	101.8%
Indonesia	14,071	3.0%	4.1%
Vietnam	13,367	2.8%	62.7%
Brazil	12,493	2.6%	26.4%
Other nationalities	139,883	29.5%	9.2%
Total enrollments	474,389	100.0%	18.5%

Source: Australian Education International, “International Student Data Year to Date August 2008”, (news release, October 1, 2008), <http://aei.gov.au/AEI/MIP/Activities/08Activity12.htm>.

Table 6. International Students Selected as Skilled Migrants by Australia, 2005-2006 to 2007-2008

Citizenship	2005/2006	2006/2007	2007/2008	Total
China	5,628	7,703	5,913	19,244
Hong Kong	1,012	873	729	2,614
India	2,934	4,982	5,426	13,342
Bangladesh	774	1,312	1,451	3,537
Indonesia	1,150	1,079	918	3,147
Malaysia	1,248	1,284	962	3,494
South Korea	758	1,047	1,161	2,966
Singapore	402	363	307	1,072
Thailand	264	432	489	1,185
Other	4,738	4,656	4,794	14,188
Total	18,908	23,731	22,150	64,789

Source: Unpublished statistics provided by the Australian Department of Immigration and Citizenship, December 23, 2008.

²⁸ Birrell, Hawthorne, and Richardson, *Evaluation of the General Skilled Migration Categories*; Australian Education International, “AEI International Student Data YTD August 2008” (news release, October 1, 2008), <http://aei.gov.au/AEI/MIP/Activities/08Activity12.htm>.

²⁹ Bob Birrell and Virginia Rapson, *International students: Implications for Australia’s Immigration Program and Higher Education System* (Melbourne: Center for Population and Urban Research, Monash University, October 2004).

IV. Global Competition to Attract International Students

Global competition is now intensifying to recruit and retain international students — a strategy prioritized by OECD governments and employers. This section outlines some of the policy methods such governments are using.

Facilitating Student Entry

Virtually all OECD countries are introducing active measures to ease international student access and reduce red tape. The United States, for example, has launched recent policy initiatives designed to stem the post-September 11 decline in international student numbers, including improved visa regulations and new strategic initiatives favoring “priority” student source countries (most notably China, Chile, and Morocco).³⁰

In marked deviation from tradition, Germany is also intensifying international student recruitment, in a context where research evidence suggests “it is more difficult to attract highly skilled professionals than to train them directly in Germany.” According to a 2005 report by the federal Ministry of Education and Research, “Heated debate on Germany’s economic competitiveness in the world (and...) fears of an impending shortage of skilled professionals have prompted the country to redouble its efforts to attract foreign students.”³¹

Germany’s new immigration law, introduced in 2005, allows students to work 180 half-days per year; they can apply for the new Highly Skilled Program after graduation and permanent residence within five years. The law gives scientists with outstanding knowledge in their fields priority, facilitating applications from former master’s and PhD students. As summarized in a recent study:

*The current situation in Germany... as well as (in) international labor markets is characterized by high levels of unemployment accompanied by a simultaneous shortage of experts and specialized personnel. The existing qualification structure of the national labor force potential is not in accordance with the qualification demands of a rapidly changing globalized economy and a national economy undergoing far-reaching structural changes (qualification mismatch). In spite of considerable efforts to improve qualification levels of employees as well as of unemployed persons, an additional demand for highly qualified experts has to be acknowledged.*³²

While Japan remains wary of immigration, in March 2006 its government issued new guidelines for obtaining permanent residence, aiming to make it easier for students to extend their stay. At the same time, the Japanese government has tasked an Education Rebuilding

³⁰ Lindsay Lowell, Micah Bump, and Susan Martin, *Foreign Students Coming to America: The impact of Policy, Procedures, and Economic Competition* (Washington, DC: Institute for the Study of International Migration, 2007).

³¹ Wolfgang Isserstedt and Klaus Schnitzer, *Internationalisation of Higher Education: Foreign Students in Germany and German Students Abroad* (Berlin: Federal Ministry of Education and Research, 2005), 4-6.

³² Barbara Helle and Lenore Sauer, “Conditions of Entry and Residence of Third Country Highly Qualified and Highly Skilled Workers” (study in the Framework of the European Migration Network, Small Scale Study III, Bundesamt für Migration und Flüchtlinge, Nürnberg, 2007), 11.

Council subcommittee with “internationalizing higher education...to increase foreign enrollments and prevent further decline.” In April 2007, the extraordinary target of 1 million extra international students was established for 2025, based on “more English-language provision, more flexible credit-transfer systems, and more funding for private scholars.”³³

Language of Instruction

Japan had made a critical realization: international students want tertiary training in English because it is the global science, business, and professional language. To remove the potential language barrier—and better compete with the United States, Australia, and the United Kingdom—non-English-speaking destination countries are delivering a growing array of tertiary courses taught wholly in English.

The Netherlands, for example, has offered English-language degree and training programs for many years. In 2003, the country hosted about 37,000 international students, the vast majority of them enrolled in one of the country’s 1,000-plus English-language programs. At the time, the Netherlands had more English-language programs than any other country in mainland Europe.³⁴ By the 2007-2008 academic year, the Netherlands had 70,000 international students and was marketing 1,332 English-medium courses, including 956 full bachelor’s and master’s degrees.³⁵ Germany and Sweden, among others, are replicating this strategy.

Certainty of Access to Postgraduate Stay

In the context of sustained demographic contraction, a wide range of developed countries have introduced permanent and temporary visa categories designed to facilitate international students’ stay after their studies. For example, two-step migration to New Zealand had become the norm as early as 2005, with 88 percent of skilled migrants having first entered the country as students or temporary workers.³⁶

The United Kingdom’s new managed migration system encourages students to shift from Tier 4 (education) status to Tier 1 (unsponsored skilled migrant) or Tier 2 (sponsored employer-nominated worker) status with ease.³⁷ To support this process, new graduates automatically receive a four-month job-search period. Meanwhile, Australia’s 2007 immigration rule changes have given near automatic entitlement to an 18-month visa valid for work experience or further training.

³³ Lasanowski and Verbik, *International student mobility*, 14.

³⁴ Netherlands Organization for International Cooperation in Higher Education (Nuffic), *Annual Report 2004* (The Hague: Nuffic, 2005), <http://www.nuffic.nl/pdf/nuffic/report2004/annualreport2004.pdf>.

³⁵ Nuffic, *Internationalization in higher education in the Netherlands: Key figures* (Nuffic: The Hague, 2008), <http://www.nuffic.nl/international-organizations/docs/keyfigures/KeyFigures2007.pdf>

³⁶ Richard Bedford, “Skilled migration in and out of New Zealand: immigrants, workers, students and emigrants” in *Evaluation of the General Skilled Migration Category*, Bob Birrell, Lesleyanne Hawthorne, and Sue Richardson (Canberra: Commonwealth of Australia, 2006).

³⁷ Home Office, “How it works. The points-based system,”

<http://www.ukba.homeoffice.gov.uk/managingborders/managingmigration/apointsbasedsystem/howitworks>

Canada has introduced a range of programs to enhance its attractiveness as an international study destination, beginning with a postgraduate work permit program to facilitate two-year extensions of stay and liberalized rights for part-time employment. The Canadian Experience Class, introduced in September 2008, permits former foreign students and temporary foreign workers in Canada to seek permanent resident status immediately by applying through a points-tested subcategory. The Experience Class has strong potential to grow, since the government has not placed defined limits on its numbers. The aim is to assure a “more seamless social and economic transition to Canada.” According to a recent press release, the “Government of Canada has chosen to cast a wider net to avoid missing those with the Canadian experience we want, through residency restrictions.”³⁸

Cross-Subsidization of Study

Virtually all OECD countries allow international students to work (typically 20 hours per week) while a number maintain near-zero tuition-fee policies, a European strategy Asia-Pacific Economic Cooperation (APEC) countries are now discovering. Germany and France, for example, charge negligible fees to international students at any enrollment level (see Table 7). And for the past two years, New Zealand has waived fees for students enrolled in PhD courses, resulting in rapidly increased international doctoral student flows, a major potential resource for the country’s economy.

The United States also provides graduate students (but not undergraduates) with near-automatic access to subsidization through research and teaching assistant positions.

³⁸ See Citizenship and Immigration Canada, “Canada’s government to help temporary foreign workers and foreign student graduates to become permanent residents” (news release, August 12, 2008), <http://www.cic.gc.ca/EnGLISH/department/media/releases/2008/2008-08-12.asp>; Citizenship and Immigration Canada, “Canadian experience Class now open for business” (news release, September 5, 2008), <http://www.cic.gc.ca/EnGLISH/department/media/releases/2008/2008-09-05c.asp>.

Table 7. Comparative Fees by Select Undergraduate Program in Certain OECD and APEC Countries, 2007

Destination country	Program/university	Fees in US dollars
Australia	University of Sydney	
	Business/management	\$18,383
	Mechanical engineering	\$20,164
	Philosophy	\$16,204
Canada	Laval University	
	Business/management	\$10,634
	Mechanical engineering	\$11,852
	Philosophy	\$11,852
China	Shanghai Jiao Tong University	
	One fee for all courses	\$3,300
France	University of Paris (Sorbonne)	
	One fee for all courses	\$235
Germany	University of Heidelberg	
	No fees for courses at this stage (policy review)	Nil
Japan	University of Tokyo	
	One fee for all courses	\$4,652
Malaysia	University of Malaya	
	Business/management	\$1,704
	Mechanical engineering	\$1,464
	Philosophy	\$1,656
New Zealand	University of Otago	
	Business/management	\$12,120
	Mechanical engineering	\$13,687
	Philosophy	\$11,050
United Kingdom	Oxford University ^a	
	Business/management	\$15,258
	Engineering	\$17,438
	Philosophy	\$15,258
United States	University of California	
	General undergraduate program per year	\$27,335

Note: ^a Oxford costs based on exchange rate for December 25, 2008: 1 British pound = 1.47280 US dollars.

Source: Lasanowski and Verbik, *International student mobility*. Additional data sourced from Oxford University and University of California websites, March 2008.

Global Promotion

Within this context, effective global promotion of study as well as migration opportunity has become essential. The United Kingdom's international student recruitment drives in 1999 and 2006 were designed to reverse declines in student flows from Asia and to challenge Australia's competitiveness in traditional and expanding markets such as Malaysia and China, respectively. The 110 British Council offices provided a major promotional resource for this effort.

Aggressive marketing is the norm: Beijing's export education fair in October 2008 attracted 35,000 prospective students and more than 600 higher education institutions from 30

countries. The fair was sponsored by government bodies from Britain, Germany, Australia, France, Spain, the Netherlands, New Zealand, and Japan.³⁹

In another example, both the US government and certain US universities are making “vigorous efforts” at the national, state, and campus levels to expand international student enrollments following a recent slump. Senior US government officials have made high-level visits to East Asia, South Asia, and South America to spread a message from the Secretary of State that “America’s mission in the new century must be to welcome students to our nation.”⁴⁰

Tailoring the Migration Package to Attract and Retain International Students

In an increasingly competitive global environment, students are knowledgeable consumers who seek the best immigration package. In addition to the components the Migration Policy Institute has defined for high-skilled migrants,⁴¹ fast application processing, certainty of selection, access to permanent resident and citizenship status, and strong immediate as well as long-term employment outcomes also attract students.

Australia has addressed such issues to a high degree. By 2006, the government had achieved three-week turnaround times for electronic applications filed by those already in Australia, compared to three months for applications lodged outside the country. Certainty of selection is strong; by 2006 the rate was 99 percent for former international students, unless they failed health or character checks.⁴² Few backlogs exist, an important outcome of applicants only being allowed to stay two years in the eligible pool. Australian citizenship is available within four years, a period shortened for students given their capacity to count periods of continuous residence during study. Six-month and 18-month employment outcomes are strong. The latest longitudinal data shows that skilled principal applicants experience 4 percent unemployment rates at 18 months after arrival, compared to a 4.7 percent national average.⁴³

V. International Students as a Future Source of Workforce Supply: Select Policy Challenges

Despite the growing attraction of students as high-skilled migrants, a range of policy challenges merit careful consideration.

³⁹ Wang Ying, “Appeal of overseas studies grows,” *China Daily*, October 17, 2008.

⁴⁰ Institution of International Education, *International students in the United States*, 2007.

⁴¹ Demetrios Papademetriou, William Somerville, and Hiroyuki Tanaka, *Talent in the 21st Century Economy* (Washington, DC: Migration Policy Institute, forthcoming 2009).

⁴² Bob Birrell, Lesleyanne Hawthorne, and Sue Richardson, *Evaluation of the General Skilled Migration Category* (Canberra: Commonwealth of Australia, 2006).

⁴³ Lesleyanne Hawthorne, “The impact of economic selection policy on labour market outcomes for degree-qualified migrants in Canada and Australia,” *IRPP Choices* (Institute for Research in Public Policy) 14, no. 5 (2008).

Issue 1: Stability as a Source of Supply

International student flows can be inherently volatile, a trend China exemplifies. Chinese student flows developed rapidly in the past decade, as previously noted. They are migration driven and highly changeable. New Zealand experienced a surge in Chinese students, from 139 in 1998 to 30,000 in 2004, when they accounted for 58 percent of all international tertiary-sector enrollments. Demand has since halved, at a reported cost to New Zealand's education industry of US\$500 million. This rapid reduction represents a skilled-migration setback as much as an export-industry blow.⁴⁴ The sudden and devastating decline reflects Chinese students' experimentation with French, German, British, and Australian education providers, as well as the growing attraction of studying in China itself at a time of massive tertiary-sector development.

Volatility is common to many international-student source countries. According to a recent US study, graduate student applications from China dropped 45 percent for the 2003-2004 academic year and declined an additional 15 percent in 2004-2005. Graduate student applications from India went down 28 percent and 5 percent over the same periods, respectively.⁴⁵ Research suggests this was in part due to more stringent visa requirements following September 11, 2001, and in part due to a range of other practical factors including increased US tuition fees.⁴⁶ As noted, the most recent available data from US Immigration and Customs Enforcement also confirms a recent resurgence in international student demand for US courses, most notably from India.⁴⁷

Issue 2: Competition from Source-Country Providers

In this fast-changing climate, a growing range of international-student source countries are rapidly transforming into suppliers. China, Singapore, and Malaysia exemplify this trend (see Table 2). By 2006, China had become the sixth most popular destination, enrolling 141,000 international students, the majority drawn from Asia but also with growing numbers from OECD countries. In particular, China is just completing a decade of extraordinary tertiary-sector growth: gross enrollment ratios, which show the general level of participation in the tertiary sector, rose from 9 percent in 1998 to 23 percent in 2007, and participation increased from 6.23 million to 27 million students.⁴⁸

Prosperity and national leadership have driven this change. The country is investing US\$4 billion into research institutes and is predicted to rank second in global engineering research

⁴⁴ Lasanowski and Verbik, *International student mobility*.

⁴⁵ American Council on Education, *Students on the move: the future of international students in the United States* (Washington, DC: ACE Center for International Initiatives, October 2006), 6.

⁴⁶ For a detailed analysis of causes underlying declines in international student demand for US courses post-September 11, see Lindsay Lowell, Micah Bump, and Susan Martin, *Foreign Students Coming to America: The Impact of Policy, Procedures, and Economic Competition*. (Washington, DC: Institute for the Study of International Migration, 2007).

⁴⁷ National Science Foundation, *Science and Engineering Indicators 2008* (Washington, DC: National Science Foundation, 2008, p 2-21-22).

⁴⁸ Libing Wang, *Migration, Quality Assurance and Mutual Recognition of Qualifications — A Country Paper of the People's Republic of China* (Hangzhou: Zhejiang University, 2008).

and development (R&D) within a few decades.⁴⁹ As early as 2000 to 2005, China led the world in R&D spending, with 18.5 percent annual average growth compared to 6.9 percent in Korea, 4.7 percent in Canada, 2.9 percent in Japan and the United States, 2.5 percent in Germany, 2.0 percent in Australia, 1.9 percent in the United Kingdom, and 1.3 percent in France (for these latter countries, averages are for the 1995-2005 period).⁵⁰ Simultaneously, the Chinese government has developed an impressive range of policies designed to attract the diaspora, including generous tax regimes, higher salaries, scope for the birth of an additional child, and access to prestigious employment.⁵¹ Further, work outcomes for returning students educated abroad have recently become less prestigious: their media representation has shifted from “sea turtles” (privileged and lucky) to “seaweed”.⁵² Not surprisingly, many prospective students now prefer to secure a top education in China.

Comparable developments are underway in other Asian countries. Thirteen percent of Singapore’s tertiary-sector enrollments are now from overseas (2 percent of the global market, or 66,000 students), including strong student flows from China (15,000), Indonesia, and Malaysia. Marketing itself as “the best of East and West... the Global Schoolhouse,” Singapore has set a realistic goal of attracting 150,000 additional students by 2015 thanks to strong international academic rankings and competitive prices.⁵³

By 2006, Malaysia had also secured 2 percent of the total student market, setting a goal of 100,000 students as early as 2010. Malaysia has invested US\$4.8 billion in the tertiary sector and is marketing itself globally to diversify its student pool. While Asia remains the dominant source region to date (with students coming from China, Indonesia, Thailand, Bangladesh, and Singapore), student flows from Saudi Arabia and the gulf states are growing. In part this is due to Malaysia’s identity as a Muslim state, supported by pro-active marketing of it on this basis. Malaysian universities have also set up campuses abroad, a model US universities pioneered.⁵⁴ The first acclaimed initiative was a private-sector university campus in Botswana (Gaborone) in mid-2007.

Issue 3: Growing Future Competition from OECD Nations

In the period ahead, all education providers seem certain to experience increasing competition from other OECD countries as well as Asian nations. With shortages in science and technology professionals rising, the United States is becoming more dependent on the foreign doctoral students in precisely these fields, especially since US graduates are vacating

⁴⁹ Lasanowski and Verbik, *International Student Mobility*; Wang, *Migration, Quality Assurance and Mutual Recognition of Qualifications*.

⁵⁰ OECD data reported by Simon Marginson, “The global higher education environment” (presentation at the Center for Study of Higher Education, University of Melbourne, July 14, 2008), http://www.cshe.unimelb.edu.au/people/staff_pages/Marginson/Melbourne%20International%20Planning%20Day%20Marginson%20140708.pdf.

⁵¹ Xiang Biao, “Emigration from China: A Sending Country Perspective,” *International Migration* 41, no. 3 (2003).

⁵² Fei Guo, “From ‘sea turtles’ to ‘seaweeds’: changing images of overseas return skilled migrants to China” (presentation to the Macquarie University Symposium, April 20, 2007).

⁵³ In 2006, for instance, the National University of Singapore ranked 9th in the *Times Higher Education Supplement* for biomedicine. By November 2007, it was ranked 33rd. Data derived from “Top 200,” *Times Higher Education Supplement*, November 9, 2007.

⁵⁴ *Ibid.*

them. Given this context, alternative OECD destinations — particularly Europe, now the destination for close to half of all international students — could threaten US student flows.⁵⁵

A range of recent papers confirm the US government’s determination to maintain its advantage. A 2007 Congress-commissioned report outlined the need to “ease the restrictions on foreign students in scientific and technical disciplines.”⁵⁶ In theory, just 65,000 employer-nominated H-1B “specialty occupation” visas are available each year to temporary, degree-qualified foreigners. However, in practice, due to visa renewals and family provisions, 1 million people are annually resident by this means, with great latitude afforded to PhD-qualified former students.⁵⁷

According to testimony to the House Subcommittee on 21st Century Competitiveness and Education, future US “security and quality of life” will depend on the country’s ability to continue attracting “the most capable students and scholars of other countries.”⁵⁸ Expediting the pathway to permanent residence for foreign graduates is viewed as central to this process, as affirmed in the recently released *Science and Engineering Indicators 2008* report:

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 six years completing the doctorate, followed by two 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 two years after starting work. Now, ten years after entering the United States, a five-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 one year, becomes a US citizen, 16 years after entry to the United States.⁵⁹

In an increasingly competitive environment, countries with uncertain or elongated migration processes will face losing prospective students to other countries.

Issue 4: International Students’ Work Readiness and Early Employment Outcomes

Australian research suggests it may be inappropriate to presume too much about the work readiness of former international students, an issue of current government-sponsored research.⁶⁰ While overall employment rates are high six months after arrival (83 percent), the

⁵⁵ American Council on Education, *Students on the Move*, 10.

⁵⁶ Christine M. Matthews, *Foreign Science and Engineering Presence in US Institutions and the Labor Force* (Washington, DC: Congressional Research Service, 2007), 21.

⁵⁷ US policy allows visa allocation for employment in a wide range of specialty occupations (e.g., medicine in areas of labor market undersupply). Further, nonprofit organizations and universities are not subject to the 65,000 annual cap, meaning they can hire as many foreigners as they like. Multiple exemptions also exist for migrants with higher degree qualifications. For a comprehensive analysis of visa categories, see Proskauer Rose LLP, *How to Make Immigration Law Work for Your Business* (Washington, DC: Proskauer Rose LLP, 2005).

⁵⁸ Matthews, *Foreign Science and Engineering Presence*.

⁵⁹ National Science Foundation, *Science and Engineering Indicators 2008*, 3-52.

⁶⁰ Leslyanne Hawthorne has undertaken this research together with select University of Melbourne colleagues. A substantial draft report was provided to the Australian government in December 2008.

most extensive review of Australia’s skilled migration program since 1988 uncovered a number of problems.

Most notably, from 1999 to 2007, students seeking two-step migration were exempted from English language testing when applying for permanent residence, the assumption being that their English and acculturation levels were strong by the point of migration. The review provided compelling evidence that this was not in fact true. A range of Australian providers appeared to have compromised their declared academic entry standards in the process of developing international student flows. Despite the majority of Australian universities “requiring” International English Language Testing System (IELTS) entry levels of Band 6.0 (competent user) or above for tertiary courses, Immigration Department testing provided unambiguous evidence that many former students fell well short of this standard after a minimum of two years’ Australian residence and tertiary study.

In 2004-2005, 43 percent of recent international student graduates from China gained scores of just IELTS Band 5 (modest user, or less than “vocational” level) on graduation, along with 36 percent of those from Vietnam and 29 percent from Thailand. A year later, the proportion of recent graduates scoring Band 5 rather than 6 or higher was significantly worse, including an extraordinary 56 percent of former students from South Korea, 51 percent from Thailand, 47 percent from Taiwan, 43 percent from both China and Hong Kong, and 42 percent from Bangladesh (see Table 8).

Table 8. Language Scores of Former International Students Approved as Skilled Migrants by Major Country of Origin, 2004-2005 and 2005-2006

Source Country	ESL Points: 15 (IELTS 5) 2004-05	ESL Points: 15 (IELTS 5) 2005-06	ESL Points: 20 (IELTS 6) 2004-05	ESL Points: 20 (IELTS 6) 2005-06	Total Tested 2004-2005	Total Tested 2005-2006
China	43%	43%	56%	57%	2,655	4,209
India	5%	17%	94%	82%	2,433	2,169
Indonesia	16%	32%	84%	68%	1,408	749
Malaysia	16%	24%	84%	76%	1,113	797
Hong Kong	17%	43%	83%	57%	863	683
South Korea	23%	56%	76%	44%	474	449
Singapore	10%	18%	90%	82%	440	258
Bangladesh	23%	42%	77%	58%	436	479
Sri Lanka	10%	25%	90%	75%	360	346
Japan	18%	37%	82%	63%	248	174
Taiwan	24%	47%	76%	53%	231	133
Pakistan	9%	25%	90%	75%	224	141
Thailand	29%	51%	70%	49%	200	175
Vietnam	36%	33%	64%	67%	200	152

Source: Adapted from data provided in Birrell, Hawthorne, and Richardson, *Evaluation of the General Skilled Migration Categories* and Bob Birrell, “Implications of Low English Standards Among Overseas Students at Australian Universities,” *People & Place* 14, no. 4 (2006).

In accounting for such outcomes, Australia’s skilled-migration review identified serious risks in relation to Australia’s export-education industry. First, *institutional conflict of interest* may have

led to compromised academic entry and progression standards. Second, the government made *unrealistic assumptions* about the speed and certainty of students' postarrival English gains. Third, *inadequate surveillance or quality control* existed for rapidly emerging, private, registered training organization providers, particularly in the vocational-education sector. Fourth, many international students experienced a *high level of cultural and linguistic enclosure* and were at serious risk of academic segregation.⁶¹

These results were the reverse of those the government anticipated. Moreover, a second finding of the 2006 review was that recent applicants who studied in Australia achieved significantly *worse* outcomes in terms of professional work than Principal Applicants coming directly from abroad (known as offshore migrants) under Australia's Economic Migration Program. Despite near-identical proportions being employed within six months of arrival (82 to 83 percent), former students had annual salaries of around A\$33,000 compared to A\$52,500 for offshore arrivals, and their average weekly earnings were US\$438 compared to US\$693. Those who studied in Australia had lower job satisfaction, with 44 percent liking their work (57 percent for offshore arrivals); they also used formal qualifications far less often in current work (46 percent compared to 63 percent).

This issue has since been rigorously addressed by fine-tuning Australia's premigration requirements, particularly in relation to work experience, English language ability, and field of qualification.⁶²

VI. Conclusion

The world has entered a period of recession (or even depression). How will this affect the trends discussed in this paper, based on recent historical precedent?

First, there will likely be profound short-term impacts on international student mobility, including students' postgraduate availability for skilled migration. Private and public savings in all of the world's international-student source countries have been brutalized (see Table 6). For example, the China Shanghai Composite slumped 66 percent from October 2007 to 2008, a problem attributed to lax Western-style discipline in monetary systems.⁶³ China's US\$600 billion stimulus package may be insufficient to arrest its economic slide.

These developments seem certain to affect global study destination choice. In particular, would-be foreign students are likely to favor distance learning and branches of developed

⁶¹ Leslyanne Hawthorne, "(International student) Outcomes - language, employment and further study (Discussion paper commissioned for Australian Education International, Department of Education, Science and Training, Commonwealth of Australia, 2007), www.aei.dest.gov.au.

⁶² Birrell, Hawthorne, and Richardson, *Evaluation of the General Skilled Migration Categories*, 97. Please also note that in December 2008, the Australian government introduced major policy changes designed to reduce the capacity of international students qualified in low-caliber trade-sector courses to participate in skilled migration. See Chris Evans, Minister for Immigration and Citizenship, "Changes to the 2008-09 Skilled Migration Program", (ministerial statement, Australian Department of Immigration and Citizenship, December 17, 2008),

http://www.chrisevans.alp.org.au/download/now/128_dec_17_ministerial_statement_final.pdf.

⁶³ Criticism by Yi Gang, Deputy Governor of the People's Bank of China, 18 October 2008; quoted in the source immediately below.

nations' universities in their home countries. For example, 120,000 international students were enrolled in Australian distance courses by March 2008 (in addition to the 370,000 studying in Australia itself). The United Kingdom and other competitor countries have made substantial investments in off-shore education provision, with branch campuses,⁶⁴ twinning programs, and educational franchises.⁶⁵

The 1997 Asian Crisis

In the most immediate recent example, the 1997 Asian currency crisis had very substantial impacts on international student flows. Regional study destinations, such as Australia and New Zealand, gained international students at the expense of other host countries typically regarded as more prestigious, such as the United States and the United Kingdom. During this period, the Malaysian government began imposing punitive taxes on families who sent their children to foreign universities and cancelling government-sponsored scholarships for Malaysians studying abroad. At the same time, Malaysia positioned itself as a regional higher-education provider.⁶⁶

By October 1997, the key Association of South East Asian Nations (ASEAN) currencies had lost between 25 and 35 percent of their value. While Thailand, Indonesia, and Malaysia were most immediately affected, South Korea and Hong Kong soon followed suit. Within two months of the start of the crisis, the Indonesian government had called in the International Monetary Fund in an effort to avert financial catastrophe; the rupiah, Indonesia's currency, had lost at least a third of its value; banks had collapsed and corporate bankruptcies were mounting; and inflation had risen to a degree that was thought directly to jeopardize the Soeharto government, which shortly thereafter lost power.

This situation reinforced student flows to the major regional APEC and OECD providers, with currency values and relative "cheapness" powerful determinants of destination choice.⁶⁷ Although Australia benefited from new flows, the country still experienced serious drops in students from the traditionally prominent Hong Kong and Malaysian markets — a process only reversed by migration-driven flows post-1999, when Australia created an immediate student pathway into skilled migration.

⁶⁴ Branch campuses are typically established in Asian or African cities by OECD tertiary institutions. These institutions replicate, in part or whole, the range of courses/facilities they provide to students in the home country. Examples include "Monash Malaysia" and "Johns Hopkins Singapore." Twinning programs are delivered in partnership with a host-country educational or business provider, allowing for stage one of a course to be delivered offshore with course completion at the "home" university (followed by conferral of that university's degree). Educational franchises occur where offshore-education bodies lease or purchase an international degree for full delivery in students' source countries, with a domestic qualification conferred. See for example, Jane Knight, "Cross-border tertiary education: an introduction," in *Cross-border Tertiary Education: A Way towards Capacity Development* (Paris: OECD / World Bank / CERl, 2007).

⁶⁵ Karine Tremblay, *Shaping the Internationalisation of Tertiary Education* (Paris: OECD, 2007); Lasanowski and Verbik, *International student mobility*.

⁶⁶ Ian Dobson, Lesleyanne Hawthorne, and Bob Birrell, "The impact of the 'Hanson' effect and the Asian currency crisis on education exports", *People and Place*, Vol 6, No. 1, 1998, p. 46; Geoff Scott, "Malaysia cuts overseas study", *The Times Higher Education Supplement*, January 16, 1998.

⁶⁷ Dobson, Hawthorne, and Birrell, "The impact of the 'Hanson' effect and the Asian currency crisis on education exports", *People and Place*, Vol 6, No. 1, 1998.

Table 9. Percentage Declines in G-20 Stock Markets, October 2007 to October 2008*

G20 stock markets	Decline
China Shanghai Composite	-66%
Russia RTS	-61%
Japan Nikkei 225	-52%
Italy MIBTEL	-52%
Turkey ISE Nat 100	-50%
France CAC 40	-46%
Argentina Merval	-46%
Indonesia JCI	-45%
India BSE Sensex	-43%
Brazil Bovespa	-43%
German DAX	-43%
British FTSE 100	-42%
Australian All Ordinaries	-42%
US DJIA	-40%
South Korea KOSPI	-39%
Mexico Bolsa	-39%
Canadian S&P/TSX	-37%
South Africa JSE	-34%
Saudi Arabia Tadawul	-26%

*The G-20 is made up of the world's 19 largest national economies plus the European Union. Only 19 exchanges are listed here as the European Union has no single EU stock exchange associated with it.

Source: "Central bank tells IMF to increase surveillance of industrialized economies: Beijing banker blames turmoil on the west," *South China Morning Post*, October 13, 2008.

In terms of destination, it is historically clear that the Asian currency crisis forced a range of regional governments to explore non-OECD-country study options despite significant quality differences. The government of Malaysia, for example, began sponsoring an increasing number of medical students to study in cheap Eastern European universities as a cost-reduction measure, diverting them from the United Kingdom, Australia, and New Zealand.⁶⁸ This shift led to concerns about education quality, however. In 2005, just 20 percent of foreign-educated Malaysian medical graduates passed a one-off medical accreditation exam administered by the Malaysian Medical Council, forcing the council to review the status and caliber of training provided by 333 international medical institutions. The standard of Eastern European training has subsequently emerged as particularly problematic. Malaysia recently barred the recognition of medical degrees from 11 Russian and Ukrainian universities in which 1,119 Malaysian-sponsored students were enrolled, a process that has exacerbated local medical shortages.⁶⁹

⁶⁸ The Malaysian government was obliged to maintain substantial scholarship-funded flows to overseas destinations at that time due to severe capacity restrictions for domestic study. This issue has been addressed in the past decade.

⁶⁹ Australian Education International, "Malaysian Medical Council to review foreign awards and university credentials" (press release, July 14, 2005); Australian Education International, "Malaysian Medical Council to review its assessment methods" (press release, January 31, 2006).

The Current Crisis

The likely redistribution of international students in the coming period will be influenced by relative currency values, local access to transnational education, perceptions of the value of alternative study sites, and of course in-country capacity development. International-student flows seem likely to diminish as a migration resource for OECD countries for a short time.

However, it is simultaneously clear that the OECD demographic trends described at the start of this paper will not disappear. Workforces are aging dramatically. The human resource demands of developed country knowledge economies will not decline. In the context of harsher origin-country economic environments, attraction to OECD study-migration pathways is likely to remain high. OECD governments will have to compete even harder for a smaller pool of students.

VII. About the Author

Leslyanne Hawthorne is Associate Dean International in the Faculty of Medicine, Dentistry, and Health Sciences at the University of Melbourne; she is also Foundation Director of the Faculty International Unit. She manages the faculty's international relations portfolio, the development of international student flows, and provision of academic support services to international students enrolled on campus.

Dr. Hawthorne was previously Research Manager at Australia's Bureau of Immigration, Multicultural and Population Research, and has two decades of experience researching high-skilled migration. In 2005 she was appointed to an expert panel by Australia's Federal Cabinet to complete the most extensive evaluation of the nation's skill migration program since 1988. The panel's recommendations since September 2007 have governed the selection of all economic migrants. From 2004 to 2006 she was commissioned by the Canadian government to compare labor market outcomes for migrant professionals in Canada and Australia, followed by additional commissioned research on foreign credential recognition in Canada (2007-2008).

Some of Dr. Hawthorne's other research projects have examined high-skilled migration policy, strategies designed to enhance global credential portability across key professions (including the medical/health sciences), international student flows, and quality assurance in health professional education.

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