

highest drop-out rates for first degrees were private providers. It is often contended that private providers face greater drop-out rates because of the greater prevalence of nontraditional students.

CONCLUSION

The private HE sector in the United Kingdom has developed a distinct character that shows a degree of diversity. Many established niche and frequently not for-profit providers continue to offer education for professional qualifications: those recently elevated to university or university college status are largely drawn from this group. More recent for-profit providers often replicate each other's provision, frequently at subdegree level, and compete with one another for the same group of nontraditional students. These providers are undoubtedly meeting market demands, but do not yet appear to be providing an alternative to the public sector. Upscaling the sector has not been something internal or supported by UK based investment. A genuine alternative sector, as envisaged by the government, may only be realized by attracting international capital investment. ■

The Coming "China Crisis" in Higher Education

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A shortened version of this article has appeared in the South China Morning Post, Hong Kong.

Universities in major countries have come to depend on Chinese students for their increasingly important international student enrollments, and are to some extent dependent on these students to balance budgets and in some cases to fill empty seats. Significant numbers of postdocs, necessary to staff research laboratories and sometimes engage in teaching, also come from China. For a range of reasons, China's global higher education role is about to change significantly, with implications for the rest of the world.

One-third of the 1.1 million international students in

the United States are from China. Similar proportions are found in such major receiving countries as Australia (38 percent) and the United Kingdom (41 percent of non-EU students). This has created an unsustainable situation of overdependence. There are also major challenges relating to China's Confucius Institutes, Chinese participation in research in several host countries, and others. In short, there are a number of key points of conflict and crisis that are likely to affect China's higher education relations with important partners.

Not only does China have the world's largest enrollments, it is also by far the biggest exporter of students, with more than 600,000 studying abroad in 2017. Around 35 percent are graduate and professional students. For the first time, China is itself active in international higher education. More than 440,000 international students, the large majority from other Asian countries, are studying in China. The multibillion-dollar "Belt and Road" initiative has a significant higher education component.

AN APPROACHING CRISIS

The generally sunny relationships between China and the major receiving countries is already beginning to undergo a dramatic and highly negative set of changes. To briefly summarize the key points that combine to ensure an impending crisis:

- Within China, several important transformations are taking place. Demographic trends combined with the considerable expansion of China's higher education system mean that there will be greater opportunities for study in the country. Of specific importance for geographically mobile students, there is more access to China's best universities as billions have been spent upgrading the top 100 or more Chinese universities. At the same time, there are significant new restrictions on academic freedom and a "shrinking" of intellectual space in China. Ideology has reclaimed a more central place in academic life, and access to information, never fully available, is better monitored and controlled with new technologies. These developments may push in opposite directions. Some students may find fewer reasons to study abroad to obtain access to high quality university, while tightened censorship may push some to leave. Also, within China, academic collaboration arrangements with foreign universities are slowing. Last summer, 234, or one-fifth, of its international university partnerships were closed, including more than 25 with American institutions—many of which were inactive anyway. Finally, the idea of "liberal education,"

for a while popular in elite universities, has been called into question. In short, for both internal political reasons and as a reaction to foreign criticism, especially from the United States, China is likely to become less open to international collaboration with top-tier universities.

- China has come under increasing criticism and pressure from abroad—criticism that is likely to lead to restrictions from some countries, and probable reactions from China itself.
- The United States, for example, has tightened rules for Chinese visa holders in some STEM fields. The FBI has warned of academic vulnerabilities to Chinese espionage, and the Trump administration has reestablished a committee to monitor the involvement of foreigners (mainly Chinese) in classified research. A report from the Australian Strategic Policy Institute has warned that collaboration between academic scientists in some Western institutions and People’s Liberation Army scientists is providing research on artificial intelligence and other areas to “rival militaries.” A British study has

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also warned of inappropriate research collaboration with China. And President Trump has called Chinese students and academics in the United States “spies”—which is hardly encouraging for scientific cooperation.

- Confucius Institutes, which have been established at more than 100 American universities and number more than 500 worldwide, have recently come under heavy criticism. A report by US–China experts has recommended more transparency in the contracts between Hanban, the Chinese agency managing the Confucius Institutes, and American universities. A half-dozen institutes have recently been closed, and more are under review. While clearly part of China’s soft power initiatives, what started out as an effort to popularize Chinese culture and teach Chinese language on foreign campuses is now seen by some as a potentially dangerous foreign agency on campuses.
- China’s efforts to impose censorship on Western

academic journals in China has received widespread publicity and condemnation in the West. Pressure on the prestigious *China Quarterly* and its publisher, Cambridge University Press, to censor 300 online articles resulted in their removal—only to be restored after widespread criticism among Western academics. Multinational publisher Springer Nature censors some of its content and prevents its distribution in China as a result of Chinese regulations. These policies and controversies have contributed to a negative image of China.

THE INEVITABLE IMPLICATIONS

As with the current trade war between China and the United States, where China imposed retaliatory tariffs on US products—and cleverly targeted them toward the states that supported President Trump, China will inevitably react against the anti-China rhetoric and actions currently evident in many Western countries. The nature of such reactions is not clear but Chinese authorities may try to curtail outward student mobility to some extent—through specific policies, “guidance” from the government and media, and financial pressure, such as cutting back on China Scholarship Council and the other rather limited scholarship programs offered, tinkering the local job market for returning graduates, and others. While very difficult to predict, it is quite likely that the number of Chinese students going abroad to several of the key receiving countries will slow down or even decline. While the overall number of Chinese students enrolling in the United States has slightly increased, the number of newly enrolled doctoral students has declined, a likely forerunner of future trends.

Mobility trends largely unrelated to the political situation will also create serious problems. For example, less prestigious colleges and universities will see significant declines as a smaller number of Chinese students compete for places in top institutions—or choose to remain at home. In the United States, there is already a shift of Chinese students away from schools in the middle of country, places perceived as “pro Trump” and perhaps less friendly to outsiders.

It is quite possible that China will tighten regulations relating to foreign branch campuses operating in the country or even make it impossible for them to function, at the same time that the Trump Administration is threatening to tighten regulations from the US side. Similar restrictions are likely to be placed on foreign research centers operating in China.

While it is impossible to predict exactly the future of China’s higher education relations with the rest of the world, it is clear that, at least for the countries that have had

the closest academic relations with China and have received the large majority of Chinese students, there will significant negative developments. For those countries and institutions that have come to rely on Chinese students to fill classroom seats and provide needed income, these developments will create serious problems. Global scientific relations with an emerging scientific power will be disrupted. On the other hand, countries working with China on its Belt and Road initiative are likely to see an increase in cooperation and involvement. ■

Australia's China Question

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As in a number of other countries, Australian views on the Chinese influence in higher education and research have become a significant issue over the last year or more. In Australia, the debate is vigorous, touching on student enrollment trends, internet protocol and security issues, and Confucius Institutes, and has become rather polarized and politicized, with some critics charging that a few politicians are making political mileage out of the issue. There are, however, two key differences in Australia, compared to the United States and Canada. First is the extent of financial dependence upon Chinese students among universities across the country. Second is the decision not to close any Confucius Institutes.

DEPENDENCE ON THE CHINESE "MARKET"

As in a number of other major destinations for international higher education students, individuals from mainland China comprise by far the largest cohort among international students in Australia. Of the almost 400,000 international students enrolled in Australian universities in 2018, Chinese students accounted for at least 30 percent. While this is not necessarily different from other major English language systems such as the United Kingdom or the United States, the degree of financial dependence on international student income among Australian universities is distinct. Recent data drawn from government auditors and individual university annual reports showed that among Australia's top-tier "Group of Eight" (Go8) universities, several earned

30 percent+ of their annual revenue from international students. The University of Melbourne and the University of Sydney each earned more than AU\$750 million (US\$532 million) from international students alone. Given that more than 30 percent of this amount derives from Chinese students, it is no surprise that vice-chancellors around the country are nervous about any downturn in Chinese enrollments, and are seeking to rapidly diversify the international student intake at their institutions. It is partly for that reason that enrollments from India rose by 32 percent in 2018, those from Nepal by 51 percent, and those from Brazil by 10 percent. The University of Sydney's Business School recently launched an AU\$1 million fee-rebate scheme to attract 100 high-achieving students from other-than-China Asian countries such as Korea and India.

SECURITY CONCERNS?

For much the same reasons, university leaders have tended to resist the concerns expressed by some within Australia's security organs, such as the Australian Signals Directorate (ASD). The head of the ASD, charged with the defense of the country from global cyber threats, recently underlined that the much-vaunted Shift to the East also included the rise of leading Chinese centers for technology and research and development, including Huawei's world-leading 5G communications technology, which Australia recently banned with strong backing from the United States. Faced with purported examples of Australia-based Chinese researchers who were also People's Liberation Army (PLA) officers engaged in high-tech research in areas such as quantum computing, robotics, new materials, or artificial intelligence, but who failed to disclose their military status and then returned to China with the results of their research, the response of one prominent vice-chancellor was to dismiss such concerns as "China-bashing." A report from the Australian Strategic Policy Institute in late 2018 listed the University of New South Wales (UNSW), one of Australia's leading research institutions, as among the top few institutions outside China with which PLA scientists copublished. In response, the vice-chancellor of UNSW, which benefits significantly both from collaboration with Chinese scholars and Chinese investment in joint scientific research, defended that institution's collaboration with China's National Defense University as a normal part of an internationally engaged university's work, and pointed out that the results were published in international, peer-reviewed journals. UNSW, it was claimed, conducted rigorous assessments to ensure that military expertise was not exported. Australia's membership in the "Five Eyes" intelligence sharing network (Australia, Canada, New Zealand, the United Kingdom, and the United States), which hosts many of the