

ture from the traditional faculty role in the United States. They typically focus their energies on only one of the three traditionally integrated faculty functions (teaching *or* research *or* service) and spend less time overall on their more circumscribed institutional responsibilities

For the largest group of full-time, fixed-contract (teaching-only) faculty there is little involvement in research and institutional governance and for research-only faculty little involvement with teaching and students. In a sense, full-time, fixed-contract appointments of the teaching-only variety represent a kind of aggregation of multiple part-time appointments into one and a significant departure from what has historically been one of the distinctive sources of American higher education's strength. Overall, fixed-term-contract faculty spend as much as 10 to 20 percent less time on their work as tenured/tenure-track faculty (and that difference is accentuated at research universities), more time than "generalist" colleagues on teaching, and less time on research (if teaching is their principal activity); publish much less; and are less engaged in student contact. They are also less involved in institutional service and administration.

It is important to note that although these appointment differences are discernible across institutional types and academic fields, they do take on different guises by institutional type and disciplinary venue. Teaching-only appointments are increasingly common at research universities, especially in the humanities (English, foreign languages, mathematics) and in several of the professions (business, nursing, other health sciences). Administrator and program-director appointments are especially common in public two-year institutions.

#### THE CHANGING ACADEMIC CAREER

Over the past half century, a singular, predictable, lockstep academic career track developed in the four-year collegiate sector in the United States as follows: (a) PhD receipt; (b) initial appointment to full-time, tenure-ladder-rank position (assistant professor); (c) review for tenure after a six-to-seven-year probationary period; (d) tenure review based on success in a trinity of teaching, research/publication, and service (institutional and external); and (e) promotion to associate and full professorships.

Newly available evidence from the US Department of Education's National Study of Postsecondary Faculty suggests that this modal, homogeneous pattern is fast becoming a thing of the past. For part-time faculty, the vast majority of previous work experience is also part time, and for full-time faculty, primarily full time. Indeed, among those who held full-time appointments in 1998, 8 out of 10 had always worked exclusively on a full-time basis.

When we compared the work experience of fixed-term-contract appointees with tenured/tenure-track appointees, a similar, if less pronounced, pattern emerged. Current tenured/tenure-track faculty usually start out that way—about

three-fifths had reported only previous tenured/tenure-track experience. At the same time, two-thirds of current fixed-term-contract faculty typically pursued their careers entirely in fixed-term-contract positions. While there is some permeability between fixed-term-contract and regular tenureable full-time appointments (about one-fourth move from fixed term to tenure track), the two have come to constitute quite independent career tracks for the majority of American faculty.

#### QUO VADIS?

How shifts in the American academic profession will impact the long-term health of the higher education enterprise is open to debate (although those closest to the profession seem the least sanguine). Clearly these changes represent one form of a larger global restructuring of academic work that the world will be wrestling with for some time to come. ■

## Can Hong Kong Keep Its Lead in the Brain Race?

PHILIP G. ALTBACH AND GERARD POSTIGLIONE

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Hong Kong's future depends on its human resources—the skills of its people in such fields as financial management, law, science and technology, tourism, the management of trade and business, and related fields. In a recent poll of 11,000 business leaders, almost 20 percent highlighted an inadequately educated work force, as the most problematic factor for doing business in Hong Kong. In the World Economic Forum's Global Competitiveness Report of 2005/06, Hong Kong dropped 7 places to 28 out of 117. To build and maintain human capital, Hong Kong needs world-class innovative and competitive universities. Singapore, similar to Hong Kong in its dependence on brains and innovation, has been rapidly internationalizing its higher education system, actively recruiting scholars and students globally and from mainland China as well. Singapore (like South Korea and Taiwan) got a big jump on Hong Kong by heavy investment in science and technology R&D in the 1980s and 1990s. Hong Kong has paid for that mistake and still lags behind with a GDP expenditure on R&D of 0.7 percent compared to 1.9 percent on average in the

EU in 2004, 2.26 for OECD countries, 2.59 percent in the United States, 3.15 in Japan and 2.25 in Singapore. Even renowned astrophysicist Steven Hawking, on a visit last week with Hong Kong chief executive, called for the funding of more research and teaching posts at Hong Kong's universities.

Hong Kong's quick-profit business community chose to rely more on the approaching reunion with China for keeping the economy charging ahead, rather than following the path of the other three Asian Tigers. It seems to be repeating that scenario with respect to investment in higher education. A special challenge now is keeping abreast of the rapidly developing and improving universities in other parts of China. If Hong Kong does not pay special attention to its universities, it will inevitably lose its position as a primary place for innovation and commerce internationally and in the region. However, another widely held perspective is that Hong Kong benefits greatly from robust university growth on the mainland and that the proximity to and unique relationship with mainland universities will become instrumental to enhancing Hong Kong's global competitiveness. This may be wishful thinking. The mainland is in fact building universities that rival Hong Kong's best institutions now.

#### MAINLAND DEVELOPMENTS

The challenge from the Chinese mainland in higher education is immense. At the present time, China is making a headlong effort to create a dozen or more "world-class" universities. Academic leaders and the government are not thinking about Hong Kong but rather Oxford, Berkeley, Harvard, and other world-class universities whose leaders have been spending a good deal of time visiting China lately. Peking and Tsinghua Universities have long been identified as leading institutions, and much money has been spent to build new facilities and instill a culture of academic quality and competition. Three additional examples can illustrate the scope of China's efforts. Zhejiang University and Shanghai Jiao Tong University are both considered in China's "top 10." Each has upwards of 30,000 students and graduate programs in many fields. Both institutions are part of the 985 Initiative of the central government, which is providing significant resources to a select group of universities. Both also benefit greatly from additional local funding—from Zhejiang province and the Shanghai municipal government, respectively—each of which is among China's richest local authorities. Shanghai Jiao Tong's new suburban campus rivals, in size and facilities, the best of America's state universities. Indeed, it is as if Jiao Tong built the equivalent of an American "land grant" campus in five years rather than the century it took to build up the University of Illinois at Urbana-Champaign or a similar institution. China Ocean University in Qingdao—a more specialized institution in Shandong province, but also under the umbrella of the Ministry of Education—is also building its second new campus on the outskirts of the city. It will focus more specifically on marine technology, its traditional strength. However, all

three of these institutions are seeking to build strength across the disciplines and to shed the overspecialization of many Chinese universities.

Building top research universities requires more than impressive buildings and advanced laboratories. An advanced academic culture focused on research, collaborative work, meritocratic advancement, and top-quality teaching and advisement is also required. It may be in these "soft" areas that mainland universities need further development.

#### HONG KONG'S ADVANTAGES—SOME LESSONS FOR THE MAINLAND

Hong Kong has many important advantages in its academic culture that go beyond its impressive facilities. The University of Hong Kong (UHK) is undergoing a major expansion and renovation to its campus in anticipation of its 100th anniversary. But it is in the "software"—the academic culture and traditions—where Hong Kong's top universities have a competitive advantage over their mainland competitors. These include English as the main medium of instruction—while the UHK is the only exclusively English-medium institution, the other two major research institutions, the Hong Kong University of Science and Technology and the Chinese University of Hong Kong, are predominantly using English. Nevertheless, as several Chinese mainland universities are also increasing the English-medium component of their institutions, it will be more important for Hong Kong to excel in this area while keeping a high standard of Chinese. Academic freedom is sufficiently well entrenched to have withstood several major challenges since 1997. The international faculty with both Chinese and other foreign heritages have not been sidelined in the day-to-day operation of the universities and complement the cosmopolitanism of the institutions. Transparency in administration and a significant degree of faculty governance have meant that the academic staff have been involved in all major development planning and key decisions. Working conditions are favorable by international standards, as are academic salaries—despite quickly sliding downward toward the international norms with several cuts in recent years, a delinking from the civil service salary scale, and introduction of a performance-based salary system. However, Hong Kong's competitiveness in terms of salaries may gradually decline as salaries and conditions on the mainland improve and academic salaries in other places like the United States continue to rise.

While permanent tenured academic appointments are highly competitive and difficult to obtain in Hong Kong, there is a recognized academic career path and reasonable security of employment. Mainland institutions are still struggling to establish regularized personnel policies, with appropriate expectations and evaluations.

Perhaps most important is the fact that both Hong Kong's universities and its society function according to accepted international standards and have a general commitment to excellence, meritocracy, and an openness to ideas and innova-

tions.

#### WHAT HONG KONG NEEDS

The main requirement for Hong Kong to maintain its competitive academic system is for society at all levels—including the universities themselves as well as the government and the public—to support the universities and recognize them as a central element of Hong Kong's competitive future. This means both adequate funding as well as attention to maintaining and strengthening Hong Kong's distinctive academic culture. An environment in which the most creative professors can pursue their work is essential. Steven Hawking also pointed out on his visit to China that scientists' deference to authority can be a hindrance to scientific breakthroughs. Many mainland Chinese academics are still at the crossroads, stuck between the old traditional bureaucratic control and the new forces of global corporate university culture. But, it won't be that way forever as social change continues in China. Given Hong Kong's heavily commercial and business culture and the lack of a strong intellectual tradition, its leadership could easily slip back into the past when Hong Kong maintained a university as a symbol rather than as a center for intellectual innovation. Within the strong pull of Chinese history, Hong Kong has not been recognized as a cultural Mecca or center of intellectual dynamism, and the powerful business sector has often remained skeptical of the usefulness of Hong Kong's universi-

ties with their high price tags.

Hong Kong needs to commit fully to the idea that the knowledge economy is one of its keys to the future. That means that Hong Kong's key universities need to be supported in their efforts to compete globally. Specific policy initiatives should include internationalization (recruiting international staff and students), the continued use of English as the central language of higher education, an emphasis on academic and professional fields especially relevant to Hong Kong's competitive future, dedication to intellectual freedom and independence that have been a hallmark of higher education in Hong Kong, the ability to attract Hong Kong overseas scientists to return home, continued reform of the school system, an undergraduate curriculum that builds problem-solving skills and commitment to community building, and a research culture that is supported with bold initiatives to sustain a new intellectual environment of discovery and application. Without these emphases, Hong Kong will be unable to keep abreast of the emerging academic sector in mainland China and will fall behind in global higher education competition. Of central importance is sustained financial support for higher education. ■

## New Publications

### New CIHE Publications

The Center has published two new books. Copies are available without cost by request from readers in developing countries.

D. Bruce Johnstone. *Financing Higher Education: Cost-Sharing in International Perspective* (2006). This book includes analysis of the theme of financing and cost sharing and case studies of specific countries. A commercial edition is available from

Sense Publishers, POB 21858, 3001 AW Rotterdam, Netherlands.

Philip G. Altbach. *International Higher Education: Reflections on Policy and Practice* (2006). This book contains a collection of articles reprinted from *International Higher Education*, on a range of themes such as internationalization and globalization, research universities, private higher education, the academic profession, as well as others.

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