

Higher education in the Guangdong, Hong Kong and Macao Greater Bay Area

This issue of *Asian Education and Development Studies* focuses on higher education in the Guangdong, Hong Kong and Macao Greater Bay Area (GBA). It contains a diverse collection of empirical studies by scholars from universities in Guangdong, Hong Kong and Macao. With over 200 universities, and over half a million students, the GBA comprises two special administrative regions (Hong Kong and Macao) and nine municipalities (Guangzhou, Shenzhen, Zhuhai, Foshan, Huizhou, Dongguan, Zhongshan, Jiangmen and Zhaoqing). It covers an area of 56,500 square km, with a resident population of around 70 million. Because of its geographical location and economic significance for the whole country, the central government initiated the GBA Development Strategy (Chen, 2018). The GBA Development Strategy encompasses a macro-framework enriched by additional policy measures. The framework is ambitious, dynamic and subject to interpretation and negotiation at different levels.

The GBA Development Strategy aims to create a connected and unified area with formidable economic competitiveness and technological innovations. The strategy builds upon years of economic and social cohesion in the Pearl River Delta. The GBA concept gained saliency on the basis of South China's unprecedented growth since the establishment of the Shenzhen Special Economic Zone, the industrialization of the Pearl River Delta, the renovation of Macau as a world class entertainment center and the international interdependence of Hong Kong's financial sector with the highest density of top-ranked universities in the world.

Alongside China's other two super regions – the Yangtze River Delta (YRD) and Jing-Jin-Ji (JJJ), there are unique advantages of the GBA. It is the largest and most populated urban area and is among the 5th largest bay areas in the world, which is comparable with the bay areas of London, New York, San Francisco and Tokyo. The GBA's location also makes it regionally strategic for Belt and Road engagement with ASEAN.

The GBA's 70 million inhabitants with 12% of China's GDP make it the 12th largest economy in the world. China's most innovative technology companies are located there, giving it the potential to be the world's center of technological acceleration. It aims to lead in artificial intelligence, robotics, biomedical and healthcare technology, energy distribution systems and data connectivity sectors. To lead, it needs great research universities that attract international scholars and scientists who produce world leading innovations and employable and entrepreneurial graduates.

The GBA initiative is rooted in the Pearl River Delta Reform and Development Plan (2008–2020) issued by the National Development and Reform Commission (NDRC, 2009). The GBA concept was first proposed in 2015 as part of the Vision and Action for Promoting the Construction of the Silk Road Economic Belt and the 21st Century Maritime Silk Road (Ministry of Commerce, 2015). The GBA concept appears in the 13th five-year plan for National Economic and Social Development (State Council, 2016) and the report of the CCP's 19th National Congress in October 2017. Prime Minister Premier Li Keqiang included the GBA in his Government Work Report (Li, March 2018). The framework agreement on deepening Guangdong–Hong Kong–Macao Cooperation in the development of the GBA was promulgated in 2017 (NDRC, July 2017), and in 2019, the CCP Central Committee and State Council announced the outline of the GBA Development Plan to the year 2035 (State Council, 2019).



The GBA Development Strategy is a key piece of China's coordinated regional approach to economic development that includes the Belt and Road Initiative, JJJ Coordinated Development Initiative, Yangtze River Economic Belt and YRD Regional Integration Strategy. Together, they aim at achieving a high-quality development (State Council, 2018). President Xi Jinping in the 19th National Congress of the Communist Party of China stated, "We will give priority to the development of the Guangdong-Hong Kong-Macao Greater Bay Area, cooperation between Guangdong, Hong Kong, and Macao, and regional cooperation in the pan-Pearl River Delta, thus fully advancing mutually beneficial cooperation between the mainland and the two regions." (Xi, 2017). He considers this an opportunity to leverage the advantages of Hong Kong and Macao and bring prosperity to China and the international community.

China's nationwide regional development strategy framework centers on the aim of building a more innovation economy that will support a structural rebalancing from a labor intensive, low investment, export-oriented economy to a high-tech manufacturing and service-based economy that relies more on domestic consumption. The GBA is considered to be China's most developed region with leading industries in the areas of manufacturing, financial services and technological innovation which is key to its economic transition (Chen, 2018). It is envisioned to become a new channel for global engagement to drive China's economic growth (Deloitte, 2018). In this sense, the GBA initiative is supposed to serve China's economic internationalization with such slogans as "Openness brings progress, while self-seclusion leaves one behind" and "We must actively participate in and promote economic globalization, develop an open economy of higher standards, and continue to increase China's economic power and composite strength" (Xi, 2017). GBA is the most open region to the outside world and will play a key role in the Belt and Road Initiative.

In higher education, there is already a growth of academic and educational interchange across the major GBA cities. While mainland students enrollment in Hong Kong's universities have been strong for over 20 years, the number of Hong Kong students choosing to study in universities on the Chinese mainland has increased since 2019. In 2021, some 20% more Hong Kong students applied to mainland universities than in 2020, which amounted to around 4,000 (SCMP, 2021). At the same time, most universities in Hong Kong either have or are in the processes of establishing campuses in Shenzhen, Guangzhou and other cities in the GBA. This includes the Hong Kong Baptist University in Zhuhai; the Chinese University of Hong Kong in Longgang, Shenzhen; The Hong Kong University of Science and Technology in Guangzhou; City University of Hong Kong in Dongguan and Hong Kong Polytechnic University in Foshan. The University of Hong Kong has established a hospital in Shenzhen and has plans for building a campus in Shenzhen. There are many supporting policies, regulations and agreements that integrate higher education across the region [1].

In an article by Xie *et al.* (2020), a promising future for GBA universities is modified by the challenges of integration due to divergent academic cultures. "Higher education institution in GBA can become world leaders in addressing problems like COVID-19, future pandemics, climate change, global poverty, equity and social justice, and sustainable development in innovative ways. They have begun to cultivate innovative talents with global vision and competitiveness, high-quality research, and industry-university cooperation. But their potential is limited by the awkwardness of their divergent frameworks for institutional governance in higher education. This is especially true with respect to internationalization. Qatar, Dubai, and Singapore all regarded the internationalization of higher education as an important strategy to attract and nurture international talents. China's SAR universities are well-seasoned in how to anchor globalization for economic and social development. In GBA cooperation, Guangdong's universities have to juggle internationalization along with limited institutional autonomy and a concern about the protection of its educational sovereignty."

Guangdong Province is hosting 154 universities, of which the top five – Sun Yat-sen University, Southern University of Science and Technology, South China University of Technology, Shenzhen University and Jinan University are located in GBA. Hong Kong has the highest concentration of world-ranking universities in one city, the top four being The University of Hong Kong, The Hong Kong University of Science and Technology, The Chinese University of Hong Kong and City University of Hong Kong. The two top Macao institutions are the University of Macau and Macau University of Science and Technology. Macao's total number of university students is only 36,000, of which 44% are local, with the rest from the Chinese Mainland ([Higher Education Bureau, 2020](#)). In 2020, Guangdong's universities enrolled over 720,000 first-year students, achieving a gross enrollment rate of 52% ([People's Government of Guangdong Province, 2021](#)). In Hong Kong, the enrollment of all university students in UGC-funded universities is around 100,000, with only around 15,000 first-year students ([UGC, 2020](#)).

In the first article of this collection, Hayes Tang identified the challenges and possibilities for GBA regionalization by offering a potentially rich empirical example. He draws on inductive theorizing from successful innovation cases in the West. However, he notes the tensions that arise with increased interactions between university, government and industry for fostering knowledge synergies across the GBA. He argues that Hong Kong's status as an international finance center and well-established judicial system can help to leverage its edge in scientific research, world-class universities and international standard of academic freedom, all of which are highly regarded by the Central Government because they can play a key role in achieving China's aspiration of becoming a global technology power. However, the GBA economic plan is still vague. The ways in which key node cities and knowledge innovation clusters can capture and capitalize on the regional entrepreneurial ecosystem are still unclear. GBA regionalization is dynamic but open-ended. There remains a question about how grounded concepts are related to the governance and innovation discourse of "one country, two systems" and the social connectedness and capitalization with Chinese characteristics. His article sheds light on the role of international social capital in the synergistic interface between regionalization and national innovation system.

Marina Ma *et al.* (Zhu, K., Cao, Y., Chen, Q. and Cheng, X) focus squarely on what needs to be done to integrate university programs and industrial production. To avoid a deviation of the industrial structure from human resource shortages, the complementarity university disciplines in the three regions – Guangdong cities, Hong Kong and Macau – must determine with more specificity the relationship between regional university disciplines and the industrial structure. Their research uses predictor variables, specifically the GDP compositions by sector of the industrial structure and criterion variables of university enrollments by academic programs. Their results indicate that there is an industrial structure deviation among secondary industries in Guangdong and Hong Kong. The number of science and engineering graduates exceeds the demand from Hong Kong. Moreover, science and engineering graduates in Guangdong cannot satisfy the demand from secondary industries. This hints at the need for incentives that can attract engineering graduates from Hong Kong to Guangdong. In short, Ma *et al.* argue for a more efficient talent ecosystem with more complementary flow, sharing and cultivation across the GBA.

The paper by Wright and Wei warns about the destabilization caused by the worldwide expansion of higher education. Skyrocketing enrollment rates have cut into the value of a higher education degree as a currency of opportunity. The expansion of higher education in the GBA risks a precariousness of unemployment, under-employment and disappointment with low salaries. They investigate how university students understand and respond to this situation. After 100 in-depth interviews with final-year undergraduates of both elite and lower-tier universities in Guangdong, they find that students are in fact acutely aware of the intensity of competition for employment after graduation. While attendance at elite

universities and study in high-status fields matters most, the graduates see a need to stand out by adding value to their personal profiles with internships, student governance experience, party membership, personal connections, study abroad programs and overseas postgraduate education. These new currencies of opportunity for employment matter. Amid the intensified competition, one hears Chinese youth using words like *Nei Juan* (内卷) and *Tang Ping* (躺平). *Nei Juan* describes a process that curves inward and implies an endless, futile competition. Many people compete but only some win. Working extra increases the chance of winning, but that effort is soon equalized by others. *Tang Ping*, or lying flat, means taking a passive attitude toward life and keeping away from the endless competition for a better job or promotion (as well as buying purchasing an unaffordable flat, investing with the dream of riches, etc.). Wright and Wei point out the net impact on students of the upward spiral of expectations to be prepared as they enter the market place.

Amid an upturn since the national security law of Hong Kong students going to the Chinese mainland for university, Alice Te examines the complexity experienced by students about where to pursue further study. She draws on primary data from in-depth interviews of 51 Hong Kong students who chose to study in Chinese mainland universities. Her qualitative inquiry probed deeply into reasons and processes underlying their educational choices. Before 2020, many Hong Kong students are pushed northward due to the high bar required for access to preferred programs in local university programs. The pull toward mainland universities has increased as Hong Kong students gain preferential access to the so-called Project 211 (top-tier) universities or to specific programs that have exceptional reputations. The research identifies three distinct phases of the decision-making process by students with three distinct orientations: pragmatists (those who enroll in their aspired programs as the first choice), achievers (those who utilize a fast-track path to enter elite universities) and underachievers (those who treat study in the Mainland as a last resort). This research took place at a pivotal point in the history of the Hong Kong SAR shows how the dynamics of educational choice are affected by a multitude of factors, including the socio-cultural and socio-political contexts, the attractiveness of the hosting universities, the secondary schools attended, parental preferences and students' personal perceptions.

Shao Yanju documents Macao's versatility in using its universities to address the need for advanced academic degrees in Guangdong. Macao has found a niche in the ever increasing cross-border student flow of postgraduate students from the Chinese mainland. Her research examines the motivations and experience of a particular cross border student flow – those college teachers in Guangdong Province who register in Macao for PhD study at private universities. There are four public and six private institutions of higher education, four of which offer postgraduate programs (University of Macau, City University of Macau, Macau University of Science and Technology and University of Saint Joseph). They rely heavily on non-local postgraduate students, the large majority of which are from the Chinese mainland. Her qualitative research is based on in-depth interviews of 13 college teachers. While documenting the motivations and difficulties they faced, Shao identifies the satisfaction these students gain in self-formation while strengthening and expanding Macao's role in cross-border education. Her findings suggest Macao as an acceleration site for brain circulation between Macau and Guangdong as part of a regionalization strategy for China's GBA.

With a focus on entrepreneurship and entrepreneurial activities, Liu Dian provides knowledge about the perspective of university graduates toward this set of capabilities that are declared as essential for the GBA region. She takes a conceptual stance that sets the integrated role of structure and agency. This leads her to examine how university graduate entrepreneurs recognize, review and activate their entrepreneurial opportunities. To draw implications for the integration of the GBA, she performs 12 case studies of small-scale graduate enterprises based in Shenzhen and Hong Kong. The fieldwork, including enterprise visits, analysis of enterprise documents and interviews of entrepreneurs who had graduated

within five years. She found that an initial lack of experience made graduate entrepreneurs more dependent on existing external opportunities in the market (instead of new inspirational creations), which she referred to as objectivity–opportunity with external enablers. The challenge of a lack of experience functions as sources of hesitation in decision-making, which she refers to as subjectivity–element of entrepreneurial opportunity identification. This study highlights a continuous evaluation in activating the external enablers and a self-evaluation of challenges in the face of entrepreneurial opportunity. This analysis of entrepreneurial opportunity identification of university graduates adds a key dimension to the GBA’s aim to understand, encourage and support entrepreneurial activity among new university graduates.

Vincent Wong rounds out this collection by addressing a key issue for the success of the GBA strategy – namely internationalization. While Hong Kong has long been known as a global center of talent in banking and finance, it also has a highly respected reputation in public administration. He focuses on Hong Kong’s expertise in the internationalization of public administration education. His research is based on data over 18 months from 5 internationalization initiatives launched by a Hong Kong university with partners in Macau, Korea, Australia, Russia and Finland. He shows how Hong Kong has come to play a role as a public administration metropolis in China (including the GBA), as well as the larger Asian region, the Asia–Pacific, the Belt-and-Road countries and Europe. This is accomplished by Hong Kong with its expertise in five areas: curriculum innovation, customized training, competence framework, competence assessment and comparative policy.

This collection highlights the complex challenges facing the Guangdong, Hong Kong and Macao Greater Bay in the years ahead and the role of empirical research in gaining a more nuanced understanding of the dynamic forces at play. At the very least, it has made a strong case for further research into a number of key areas, including institutional autonomy, innovation eco-systems, industrial structure deviation and university disciplines, the upward spiral of competition for graduate employment, post-national security patterns of student decision-making about enrolling in Mainland universities, Macao’s role in advanced study for Guangdong’s expanding number of colleges, entrepreneurial opportunity identification of GBA new university graduates and Hong Kong’s role in the internationalization of the GBA education.

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Note

1. Among the relevant policies and agreements are Colleges and Universities Regulations on Enrolling and Nurturing Students from Hong Kong SAR, Macao SAR and Taiwan Region (MOE, 2016); Policy Provisions for Personnel Going to Hong Kong and Macao to Exchange; Regulation on Sino-foreign Cooperation in Running Schools (State Council, 2003); Employment Registration Certificates for Hong Kong students after graduation from mainland universities (MOE, 2017); Guangdong Province Higher Education Management Regulations and Outline of Educational Modernization in Guangdong Province (2004–2010) (People’s Government of Guangdong Province (PGGP), 2004); Guangdong Province Medium and Long-Term Education Reform and Development Plan (2010–2020) (PGGP, 2010b) and Qualifications Framework Cooperation Between Guangdong and Hong Kong (RenminNet, 2019). Agreement on the Establishment of Science and Technology 216 ECNU Review of Education 4(1) Cooperation Committee Between the Mainland and Hong Kong (Xinhua, 2004) and established the Mainland and Hong Kong Science and Technology Cooperation Committee. A joint research scheme – Guangdong-Hong Kong Technology Cooperation Funding Scheme and the Shenzhen Hong Kong Science and Technology Cooperation Funding Scheme – was created and led to the Guangdong-Hong Kong Cooperation Framework Agreement (PGGP, 2010a) and the Guangdong Macao Cooperation Framework Agreement (PGGP, 2011).

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