

# The Future of Jobs in Developing Asia

By Janet Pau and Ryan Brooks

## INTRODUCTION

Asia's economic growth in the past half century has hinged on its "demographic dividend." Home to well over half of the world's population and the majority of the world's skilled and unskilled workers, sustaining Asia's labor advantage is crucial for the regional and the global economy.

Yet many parts of Asia are facing a job creation challenge, a malaise that has hit developed and developing economies alike. Half a decade after the financial crisis of 2008, it has become increasingly clear that many of the millions of jobs lost globally are not returning. In a fast-moving and globalized economy, labor demands continue to evolve, while education systems are sometimes too slow-moving to catch up to those demands, producing graduates whose skills are inadequate for employers. Economies are also often not producing enough jobs to support fresh graduates, leading to underutilization and underemployment. At the bottom end of the labor market, low-skilled and unskilled workers face shrinking industries and systemic poverty without the ability to upgrade their skills. Lastly, technology intended to help humans work better has, instead, made some workers and jobs obsolete.

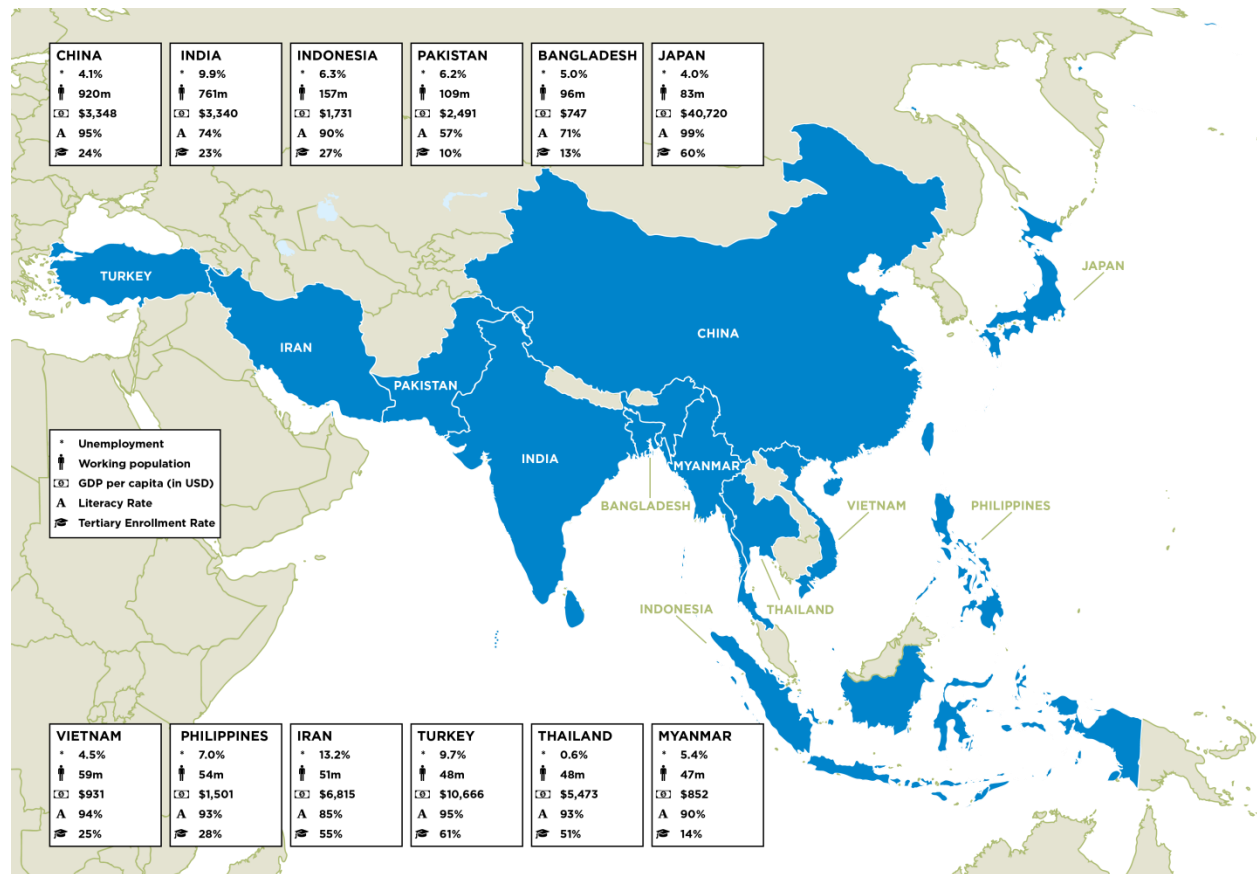
These overarching trends ring true in developing Asia. While developing Asia's relatively young demographic means the region should be producing a large share of the world's future workforce, countries find themselves in different versions of structural unemployment. Economic powerhouses India and China are faced with a large number of young graduates (for China, albeit simultaneously faced with aging demographics) and a mismatch of their skills to the job market. Plenty of graduates seek jobs and yet employers struggle with employability.

At the same time, the sheer number of jobs needed to employ the large number of labor entrants is overwhelming, leaving graduates underutilized or underemployed. Japan and now China are experiencing this—an Asian version of American employment malaise. The result is scores of disenchanted youth and unrealized economic potential.

In large developing economies like the Philippines, Indonesia, Vietnam, and much of South Asia, the demand for workers in growing manufacturing and service sectors is running up against workforces still stuck in largely informal and agricultural work. In these countries, the success of their economic transformation lies in how fast they can shift workers over from unskilled to skilled jobs.

Another factor transforming global job markets is technology, which is replacing blue- and white collar routine jobs, many of which have been moved from higher-cost developed economies to emerging Asia in the past two decades. This trend is expected to continue and even accelerate, as technology shrinks the labor arbitrage that Asian economies once enjoyed and eliminates middle-class jobs that employed workers whose skills are undifferentiated and easily replaceable.

**Figure 1: Selected Workforce and Education Indicators for Ten Most Populous Countries in Asia (2013 or Latest Year Available)**



Sources: CIA World Factbook, The Economist, World Bank, national statistics agencies

### PROBLEM 1: THE SKILLS GAP

The “skills gap” has been used to describe the difference between the supply of those with skills needed to find employment and the demand among employers to find those skilled job seekers. As emerging markets move up the ladder away from manufacturing and agriculture, labor demand grows increasingly complex, especially in a world where companies compete on a global stage.

For Asian countries experiencing high growth rates, job growth may exceed the supply of workers with the right skills and training to fill them. Chief among core skills that many graduates around Asia lack is knowledge of foreign languages, especially English, computer skills, and critical thinking.

As a result of this gap, businesses struggle to find enough qualified applicants without spending more resources on hiring and training.

In a recent McKinsey global survey, 72% of educational providers surveyed believed their graduates were ready for the workforce. Only 42% of employers believed this to be true.<sup>1</sup> An Ernst and Young report from 2011 said that around 80% of the Indian workforce does not have marketable skills. This may not be much of a surprise, as much of India's economy consists of an informal sector and most jobs are in the agricultural sector. However, skilled workers fare no better. An estimated 47% of Indian graduates surveyed by talent acquisition firm Aspiring Minds in 2013 were found to be unemployable. A similar survey by the company said that less than 10% of India's M.B.A. graduates were employable. A large portion of those surveyed in both studies had little in the way of English skills, but more alarmingly, a third of the M.B.A.'s did not know what IPO stood for.<sup>2</sup>

In Indonesia, while the tertiary enrollment rate has climbed steadily, the country was ranked last among 50 countries in a 2013 survey of national higher education systems by Universitas 21.<sup>3</sup> Rural areas and urban centers also have vastly different educational resources, and the inconsistent standards and curricula are not keeping in lockstep with the demand for skills. There is also little support for vocational programs in the country.

## **PROBLEM 2: UNDERUTILIZATION AND UNDEREMPLOYMENT OF TERTIARY GRADUATES**

The problem of underutilization of skills or underemployment occurs when jobs are inadequate for those who would like to work. Many Asian countries find it difficult to place youth educated in local universities in jobs. In China, with the government's expansion of the tertiary education system more than a decade ago, each year saw an increase in the number of tertiary-educated job-seekers. As the country moves up the value chain, the excessive growth of college graduates has outpaced the structural transition away from capital-intensive manufacturing and prematurely shifted labor supply to knowledge-intensive service professionals. In 2013, there were seven million college graduates, but only 35% had found jobs by April.<sup>4</sup> This is true even in the major cities—only 28% of Beijing's 2013 graduates found jobs by April; only 44% of Shanghai's graduates had found jobs.<sup>5</sup> And this rate is already far above those seen in India, Indonesia, and Malaysia.<sup>6</sup> Tertiary graduates are four times as likely to be unemployed as urban residents with only basic education, no thanks to an underdeveloped service sector and a strong manufacturing sector that is unable to absorb large numbers of educated workers.

Those graduates who end up seeking work for which they are overqualified often earn less than their peers working in manufacturing, living in cramped spaces with other unemployed or underemployed graduates. They were first dubbed the "ant tribe" in 2009 for their industrious nature and meager living conditions.<sup>7</sup> The shortage of semi-skilled factory workers in China is also driving their wages higher, and service labor wages down. Since 2009, professional wages have climbed 12% annually on average. In the same period, semi-skilled manufacturing wages climbed 14% annually.<sup>8</sup>

### **PROBLEM 3: LACK OF WORK FOR THE LOW-SKILLED AND UNSKILLED**

Another principal challenge in a large part of developing Asia remains the creation of decent jobs outside of the agricultural sector, which promises more inclusive growth for unskilled and low-skilled workers in countries. While this problem can also be called a “skills gap,” the population that it affects is distinctly different from younger graduates and those with higher education qualifications. In India, for instance, around 90% of the country’s 500 million workers work in the informal or unorganized sector of the economy, which generates around 50% of the country’s GDP.<sup>9</sup> As the economic composition of the country shifts from farm to non-farm, rural to urban, and subsistence employment to wage employment, labor transitions become a huge challenge, as workers are often unequipped to switch jobs. The country is ripe for structural reform, as its strict labor laws that make hiring and firing workers difficult have kept the manufacturing sector at a stagnant 15% to 18% of GDP for over 30 years despite far-reaching reforms in 1991.<sup>10</sup>

In the next six years, 85 million Indians will come of age, and India will need to absorb 10 to 12 million new entrants into the labor force each year. However, from 2011 to 2018, only an estimated 38 million jobs are expected to be created. Between 2004 and 2011, 52 million were created. Only about 10 million Indians are employed in private companies with 10 or more workers.<sup>11</sup> Large-scale job creation is a challenge that, if left unaddressed, threatens to stunt the country’s growth and trap large numbers of people in poverty.

In the Philippines, the Business Process Outsourcing (BPO) industry has boomed. In 2011, the country held the largest number of employees in the industry, 400,000, and outranked India in a 2014 industry score for outsourcing.<sup>12</sup> The Philippines’ service sector is buoyed by sectors like BPO, which hires primarily educated workers, and through remittances from workers abroad, driving up consumption. However, the country’s potential in the manufacturing sector remains untapped as a large number of unskilled and semi-skilled workers remain in informal work.

Similarly, Indonesia’s potential remains locked in the informal sector. More than three out of five of Indonesia’s workers are trapped in low-skill, low-productivity, and informal jobs. Informal work, including agriculture, still employs about 70% of the 109-million strong workforce in Indonesia. As the country’s economy shifts from informal agriculture to manufacturing, these workers are ill-equipped to take up new jobs.

### **PROBLEM 4: TECHNOLOGY AND THE FUTURE OF JOBS**

Asia is going through a permanent shift due to technological change that affects developed and developing nations alike. The nature of the job market is experiencing major disruption by technology. It is not just that machines are replacing people on assembly lines; a larger share of work that was being done by receptionists, secretaries, and even programmers of the world is being done by technological devices, or by fewer people than before due to technology-enabled efficiency gains. The reality of stagnant wages worldwide negate some economists’ argument that technological progress will increase income and thus demand for more goods and services, potentially creating new jobs. In an increasingly technology-enabled world, growth and innovation benefit the skilled, while the rest of the world clings to dwindling opportunities.

The disappearing jobs are the middle-income jobs of the world; many of them are precisely the entry-level jobs that young people seek when they enter the workforce out of a university. This “hollowing-out” of the labor force, or “job polarization,” whereby middle-skilled positions that feature routine tasks are replaced by automated machines, has been occurring for years in developed countries.<sup>13</sup> In Asian countries developing in an age where this technology already exists, there may never be a period where middle-skilled jobs exist in a significant way at all. Indeed, in China, it is the specialized and the skilled that are more likely to find work after graduation.

### **SEIZING THE DIVIDEND: CREATING OPPORTUNITY, INCREASING LABOR FLEXIBILITY, AND UPGRADING RELEVANT SKILLS**

Asian governments have made large-scale job creation a top priority. In China, President Hu Jintao is famously quoted in U.S. President George W. Bush’s 2010 book *Decision Points* as saying that worrying about the need to create 25 million jobs per year was causing him to “lose sleep” after the global downturn. So far, measures to address the issue have included barring employers from discriminating against potential hires based on their educational history in clauses on job specifications, in an attempt to discourage the bottleneck facing graduates from lower-tier schools. Because so many underemployed graduates find themselves stuck in big cities, the government is also expanding existing cities and building hundreds of new ones, as well as providing training subsidies, petty loans, tax breaks, and other incentives for graduates starting their own businesses, in the hopes of creating jobs for graduates in local communities.

However, countries could also do more through relaxing labor regulations and increasing flexibility and mobility—measures that help markets work better. In Japan, a key element of Prime Minister Shinzo Abe’s economic strategy was to create a labor status that employs quasi-full-time workers but allows companies to dismiss them when they become unnecessary. This initiative was quietly stalled due to labor opposition, but the key lesson for developing countries that are moving up the economic value chain is that they must think of ways to encourage labor mobility away from unproductive, declining industries. The Chinese central government is planning to gradually loosen the household registration (*hukou*) system, which has restricted the supply of migrant workers to cities where they are needed, as migrants are denied access to the social services available to urban residents. The reform is expected to increase labor mobility to small towns and cities where job opportunities are more abundant.

Skills upgrading and training remains a big part of the effort to maximize the region’s longer-term labor potential and foster inclusive growth. In Singapore, whose economy hinges on the skilled worker, the Ministry of Manpower and the Economic Development Board plays an important role in closing the skills gap.<sup>14</sup> It helps coordinate investments and efforts toward education and training, be it for a new Unilever leadership campus, scholarship funding, or the creation of a bioengineering cluster. The country’s efforts illustrate that investments in higher education need to be connected and aligned with broader industry development and R&D investments, so that higher education can help accelerate economic growth.<sup>15</sup> Singapore also has a relatively low youth unemployment rate, around 6.7%, and most tertiary graduates receive offers within six months.<sup>16</sup>

There are also efforts underway in the West that may shed some light on solutions for closing the gap. In New York City, IBM has partnered with New York Public Schools and the City University of New York to launch P-Tech, a grade 9-14 school that covers high school and provides an associates' degree, mentoring from IBM employees, and hiring priority at jobs at IBM. The company is talking to other cities where it could pioneer this idea.

In Japan, a similar work-based education system has existed for years. The Kosen schools are technical schools similar to a German *Realschule*, where students begin a five-year track beginning from around 15 years of age whereby they learn skills ranging from chemistry to engineering skills. Kosen schools have been training students since they were created in 1961 to meet the skill needs for the burgeoning industries of postwar Japan, especially automakers. Engineering graduates from universities are often held in lower regard than those who attend Kosen schools—often children from working-class families with above-average competencies in math and science. The government pays about \$25,000 a year per Kosen student, while students pay \$3,500 each. Those who opt to stay on for seven years in the Kosen system earn the equivalent of a master's degree by the time they are in their early twenties. Companies like Microsoft employ Kosen graduates, and they are often sent overseas to work in Japanese factories to receive relevant skills training and English lessons.<sup>17</sup>

In India, the National Skills Development Agency is a public-private partnership set up to deal with the high numbers of informal workers in the country. It is set up to “skill and up-skill” 150 million workers in India by 2022. The government estimates that there will be an additional 500 million that need training. Elsewhere in the country, entrepreneurs are creating businesses to address the issue. These include Get Domestic Help, which trains rural residents to be domestic workers, and staffing and training company Teamlease, which recently marked its millionth employee hired.

Some of India's largest industries, including IT-enabled services and financial services, are not waiting for graduates to come to them. They are reaching out to schools nationwide to make an impact on the educational development of millions of children. Infosys, India's largest IT outsourcing firm, recently opened the world's largest corporate training center, set to be able to train around 50,000 IT professionals a year. Executives at Wipro work with thousands of engineering colleges across India to train teachers to develop IT skills, build state-of-the-art curricula, and encourage students to become what the company terms “work-ready.” With a recruitment target in 2013-14 of 55,000, TCS plays a similar role in helping young people across India understand from an early age what the most valuable skills for the future are, and how best to acquire them.

Cheap and ubiquitous online education holds yet another key to accelerating the upgrading of specific skills. Elite universities from Harvard to Stanford offer free online courses to a wider and more global audience. The verdict is out as to the value of online-educated workers in the job market—attempts by Massive Open Online Course (MOOC) providers like Udacity (founded by a Stanford professor) and Coursera to place students who have taken their classes have yet to result in significant job outcomes. A pilot program from Coursera to line up 868 students with interviews with major companies only resulted in three interviews and no hires.<sup>18</sup> Nevertheless, online learning could sharpen the job qualifications and bridge specific skill gaps of graduates who already hold a degree, as well as foster lifelong learning for experienced professionals. It may also become a promising tool

that increases access to those who would not get the relevant education in a bricks-and-mortar setting, both younger workers as well as mid-career workers who require re-training.

There is no silver bullet for solving Asia's job creation challenge. But the region must find a way forward—how the region resolves this issue of job creation will determine how much of the world experiences sustained economic growth and social stability. It requires no less than coordinated and persistent efforts of employers, educators, and governments. Countries that do not proactively address the job creation challenge on a large scale face the prospect of jobless growth, populations trapped in slow-growing or dying industries, and even youth unrest. Those that do stand to benefit from their demographic dividend, tapping into their growing, largely young, and energetic working populations who can put their country at a comparative advantage.

- 
- <sup>1</sup> "Closing the skills gap," Mona Mourshed, *Project Syndicate*, November 20, 2013. See <http://www.project-syndicate.org/commentary/mona-mourshed-offers-strategies-to-reduce-skills-mismatches-worldwide>
  - <sup>2</sup> "Study: Less Than 10% of Indian MBAs are 'Employable'," *Wall Street Journal India Real Time* blog, December 12, 2012. See <http://blogs.wsj.com/indiarealtime/2012/12/12/study-less-than-10-indian-mbas-employable/>
  - <sup>3</sup> "Indonesia struggles to bridge its skills gap," *Times Higher Education*, November 14, 2013. See <http://www.timeshighereducation.co.uk/news/indonesia-struggles-to-bridge-its-skills-gap/2008876.article>
  - <sup>4</sup> "In China, higher education brings fewer guarantees," *Time*, July 4, 2013. See <http://world.time.com/2013/07/04/in-china-higher-education-brings-few-guarantees/>
  - <sup>5</sup> "Chinese college graduates cannot secure jobs," *International Business Times*, May 17, 2013. See <http://www.ibtimes.com/chinese-college-graduates-cannot-secure-jobs-28-beijings-2013-graduates-44-shanghais-have-found-job>
  - <sup>6</sup> "Where have China's workers gone?" *Bloomberg*, March 7, 2013. See <http://www.bloomberg.com/news/2013-03-06/where-have-china-s-workers-gone.html>
  - <sup>7</sup> World Economic Forum blog, "The future of China's ant tribe," accessed March 13, 2013. See <http://forumblog.org/2013/03/the-future-of-chinas-ant-tribe/>
  - <sup>8</sup> "One Silver Lining of China's Lopsided Labor Market: Shrinking Income Inequality," *Bloomberg Business Week*, December 3, 2014. See: <http://www.businessweek.com/articles/2013-12-04/one-silver-lining-of-chinas-lopsided-labor-market-shrinking-income-inequality>
  - <sup>9</sup> Knowledge @ Wharton blog, "Startups spot opportunity in training India's informal workforce," June 27, 2013. See <http://knowledge.wharton.upenn.edu/article/startups-spot-opportunity-in-training-indias-informal-workforce/>
  - <sup>10</sup> World Bank World Development Indicators, "Manufacturing, Value Added (% of GDP)," Accessed February 11, 2014. See <http://data.worldbank.org/indicator/NV.IND.MANF.ZS/countries/IN?page=6&display=default>
  - <sup>11</sup> "Sluggish growth to hit Indian jobs market," *Financial Times*, January 8, 2014. See <http://www.ft.com/intl/cms/s/0/acee402a-7847-11e3-831c-00144feabdc0.html?siteedition=uk#axzz2qzoebof7>
  - <sup>12</sup> "Manila overtakes Mumbai as No. 2 on Tholons top 100 BPO cities list," *GMA News*, January 23, 2014. See <http://www.gmanetwork.com/news/story/345205/economy/business/manila-overtakes-mumbai-as-no-2-on-tholons-top-100-bpo-cities-list>
  - <sup>13</sup> Federal Reserve Bank of St. Louis website, "Job polarization leaves middle-skilled workers out in the cold," January 2013, See <http://www.stlouisfed.org/publications/re/articles/?id=2315>
  - <sup>14</sup> "The skill gap: Asian style," *Forbes*, October 14, 2011, See <http://www.forbes.com/sites/lyndagrattton/2011/10/14/the-skill-gap-asian-style/>
  - <sup>15</sup> World Bank study, "Putting higher education to work: skills and research for growth in East Asia," 2012. See [http://siteresources.worldbank.org/EASTASIAPACIFICEXT/Resources/226300-1279680449418/7267211-1318449387306/EAP\\_higher\\_education\\_fullreport.pdf](http://siteresources.worldbank.org/EASTASIAPACIFICEXT/Resources/226300-1279680449418/7267211-1318449387306/EAP_higher_education_fullreport.pdf)
  - <sup>16</sup> "Singapore's youth unemployment rate one of the world's lowest," *Straits Times*, May 28, 2013. See <http://www.straitstimes.com/breaking-news/singapore/story/singapores-youth-unemployment-rate-one-of-the-worlds-lowest-tan-chuan-jin>

---

<sup>17</sup> “With workplace training, Japan’s Kosen colleges bridge skills gap,” *Washington Post*, October 14, 2011. See [http://www.washingtonpost.com/local/education/with-workplace-training-japans-kosen-colleges-bridge-skills-gap/2011/10/03/gIQAF0gmjL\\_story.html](http://www.washingtonpost.com/local/education/with-workplace-training-japans-kosen-colleges-bridge-skills-gap/2011/10/03/gIQAF0gmjL_story.html)

<sup>18</sup> “MOOCs: inflated expectations, early disappointments,” *Wall Street Journal* CIO Journal blog, December 27, 2013. See <http://blogs.wsj.com/cio/2013/12/27/moocs-inflated-expectations-early-disappointments/>