The world at work: Matching jobs and skills in Asia

McKinsey Global Institute

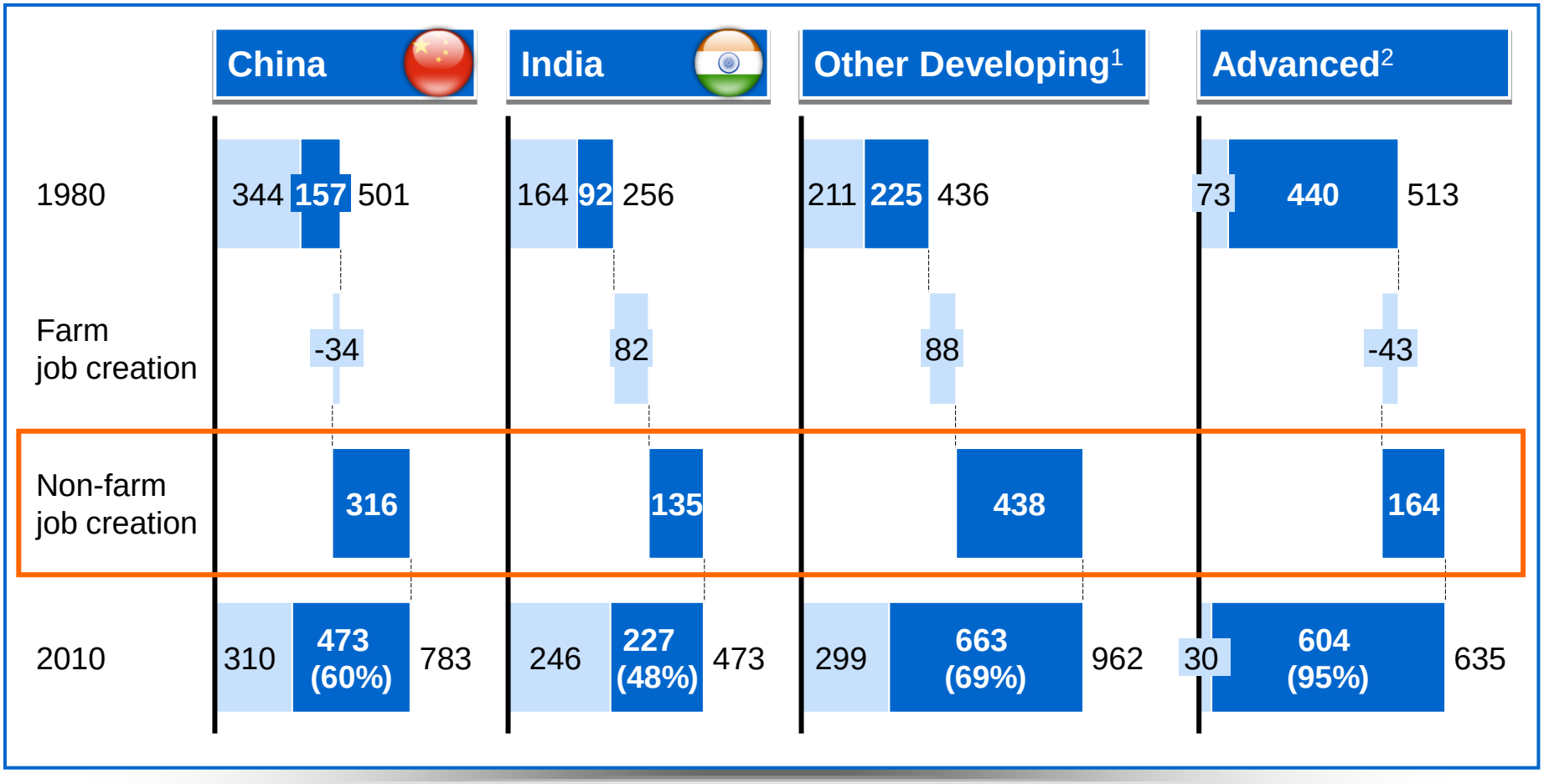
ADB International Forum on Skills for Inclusive and Sustainable Growth in Developing Asia-Pacific

December 2012

A billion non-farm jobs were created globally since 1980, 30% of these came from China and another 55% from other developing countries

Evolution of labor force, 1980-2010

Million workers (% of total)

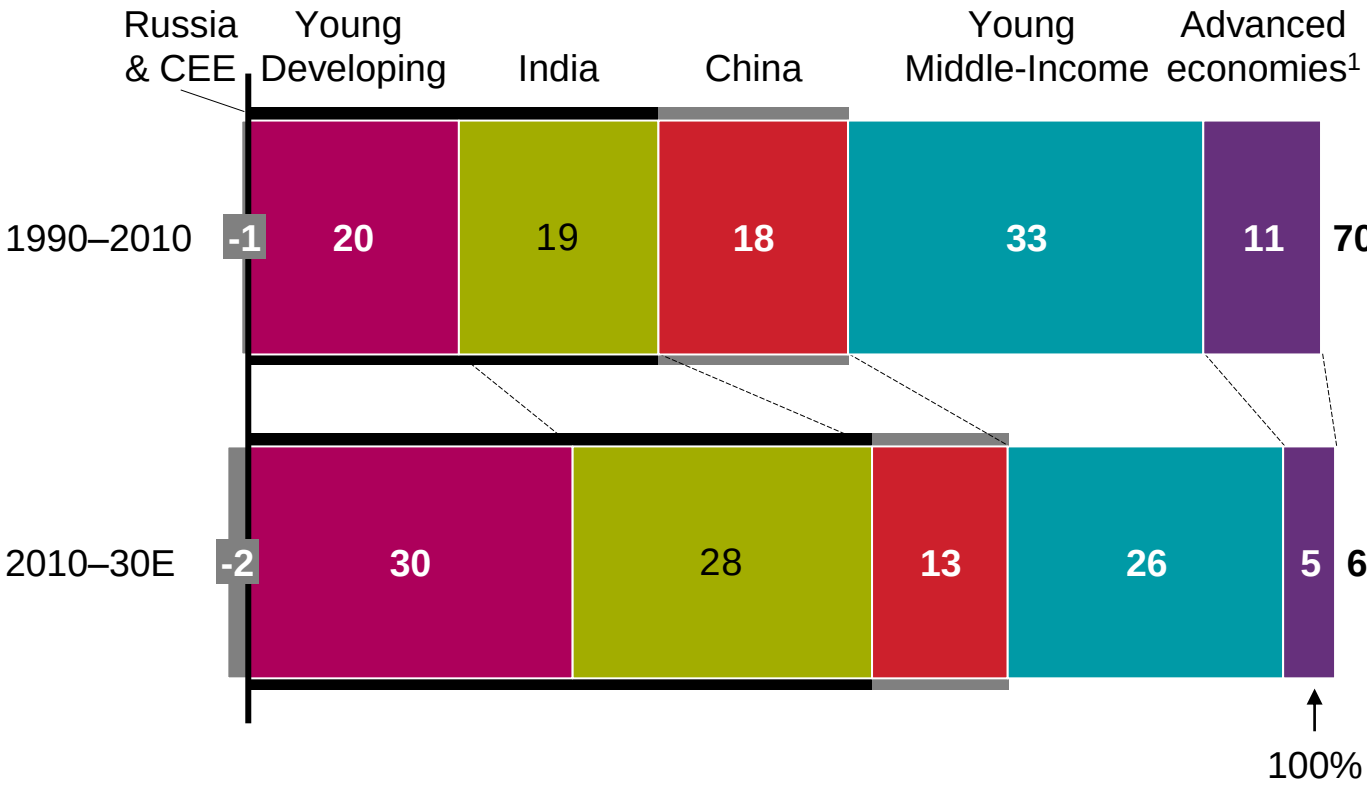


1 Includes 43 countries with GDP per capita less than $20,000 at 2005 PPP levels in 2010.
2 Includes 25 countries GDP per capita greater than $20,000 at 2005 PPP levels in 2010.
Note: Numbers may not sum due to rounding.

SOURCE: United Nations Population Division (2010 revision); ILO Key Indicator of Labor Market index; local statistics for China and India; McKinsey Global Institute analyses

Through 2030, China's contribution to global labor force growth will drop; India and "Young Developing" economies will lead labor force growth

Net new additions to labor force
%; million workers



China and India contributed more than a third of global labor force growth

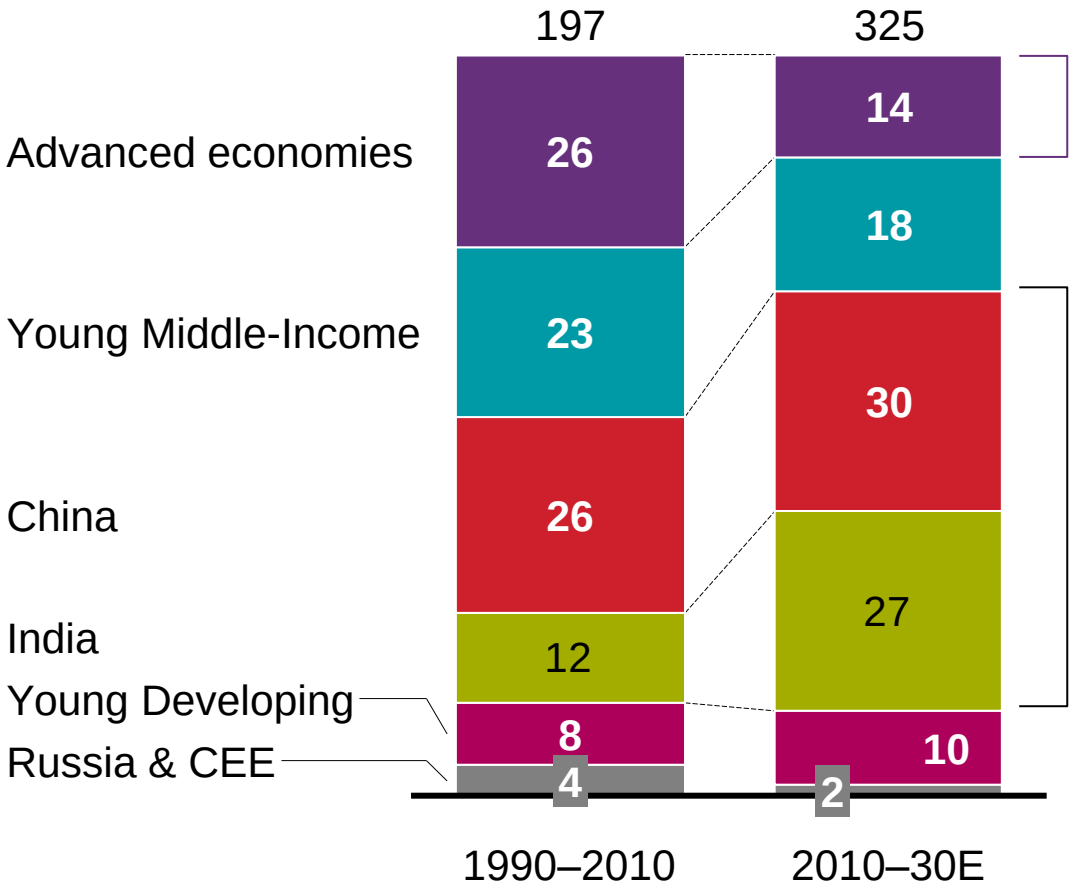
"Young Developing" economies and India will contribute almost 60 percent of global labor force growth; ASEAN countries will contribute 10%

1 Includes Young Advanced, Aging Advanced and Southern Europe clusters.
NOTE: Numbers may not sum due to rounding.

SOURCE: United Nations population division (2010 revision); ILO; Global Insight; Oxford Economics; Economist; local statistics for China and India; McKinsey Global Institute analysis

China and India are likely to contribute more than half of the world's supply of new workers with a college education through 2030

Net labor force additions with college education
%; million workers



Share of the developed world is likely to decline

- China and India together are likely to contribute 57% of the growth in workers with some college education
- ASEAN nations will contribute ~8% of the growth in workers with some college education

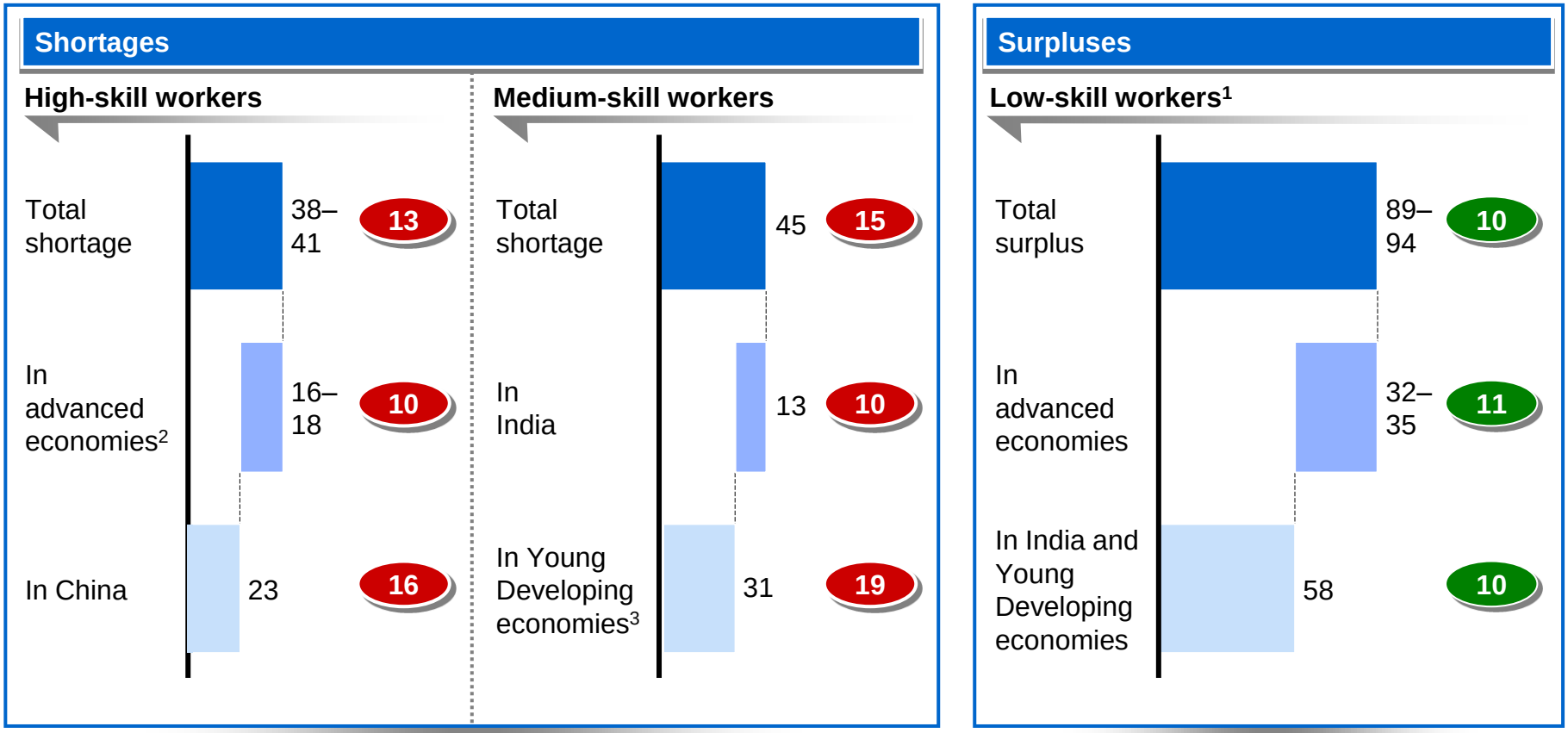
1 Includes Young Advanced, Aging Advanced and Southern Europe clusters.
NOTE: Numbers may not sum due to rounding.

SOURCE: United Nations Population Division (2010 revision); ILO; IIASA; local statistics for China and India; McKinsey Global Institute analysis

In the "momentum" case, the world is likely to have too few high-skill workers and not enough jobs for low-skill workers

Gap between demand and supply of workers by educational attainment, 2020E

Million workers



1 Low-skill defined in advanced economies as no post-secondary education; in developing, low skill is primary education or less

2 25 countries from the analyzed set of 70 countries, that have GDP per capita greater than US$ 20,000 at 2005 purchasing power parity (PPP) levels in 2010

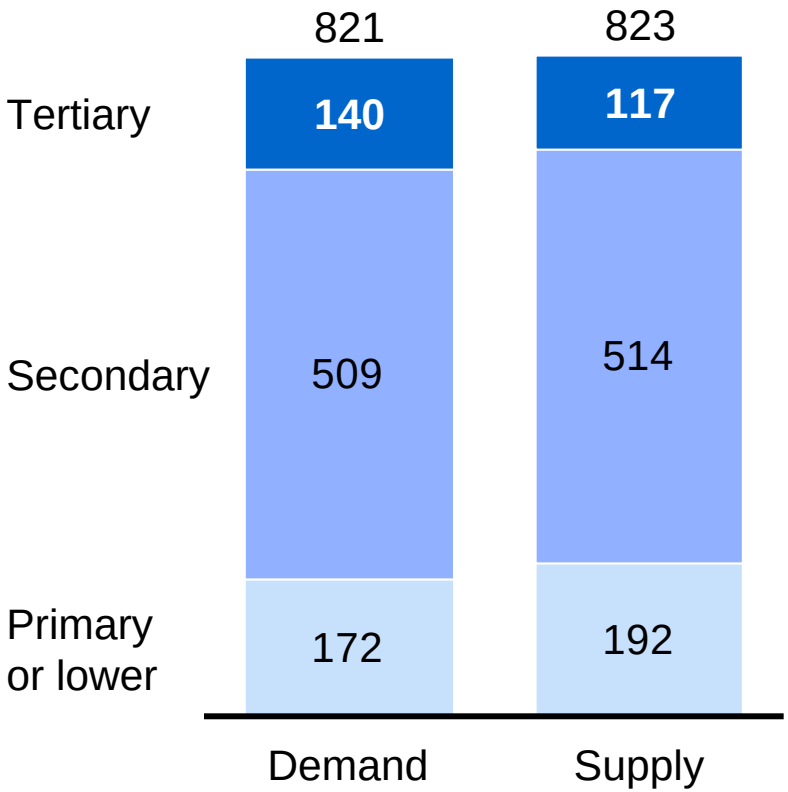
3 11 countries from the analyzed set of 70 countries, from South Asia and sub-Saharan Africa, with GDP per capita less than $3,000 at 2005 PPP levels in 2010

SOURCE: McKinsey Global Institute analysis

Demand for high-skill labor will likely grow faster than supply in rapidly modernizing Asian economies, such as China, over the next decade

Comparison of projected labor demand and supply, 2020E

Million workers



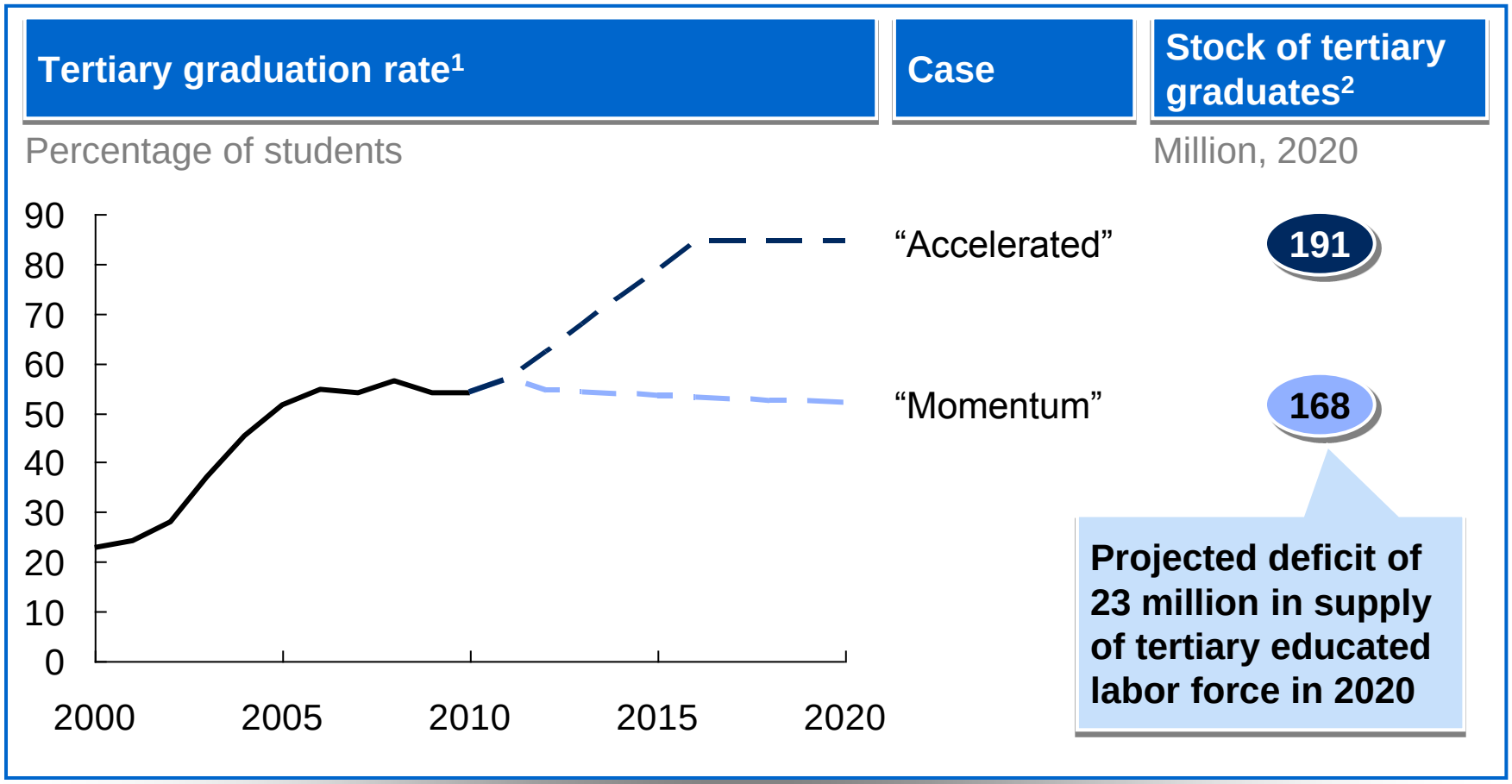
	Gap	
	Million workers	%[1]
Tertiary	-23	-16
Secondary	+5	+1
Primary or lower	+20	+10

1 Gaps are percent of demand for shortages, and percent of supply for surpluses.

NOTE: Numbers may not sum due to rounding.

SOURCE: China National Bureau of Statistics; McKinsey Global Institute analysis

Filling the gap implies need for a steep increase in tertiary graduation rates – for example, to 85% in China, especially in technical and scientific fields

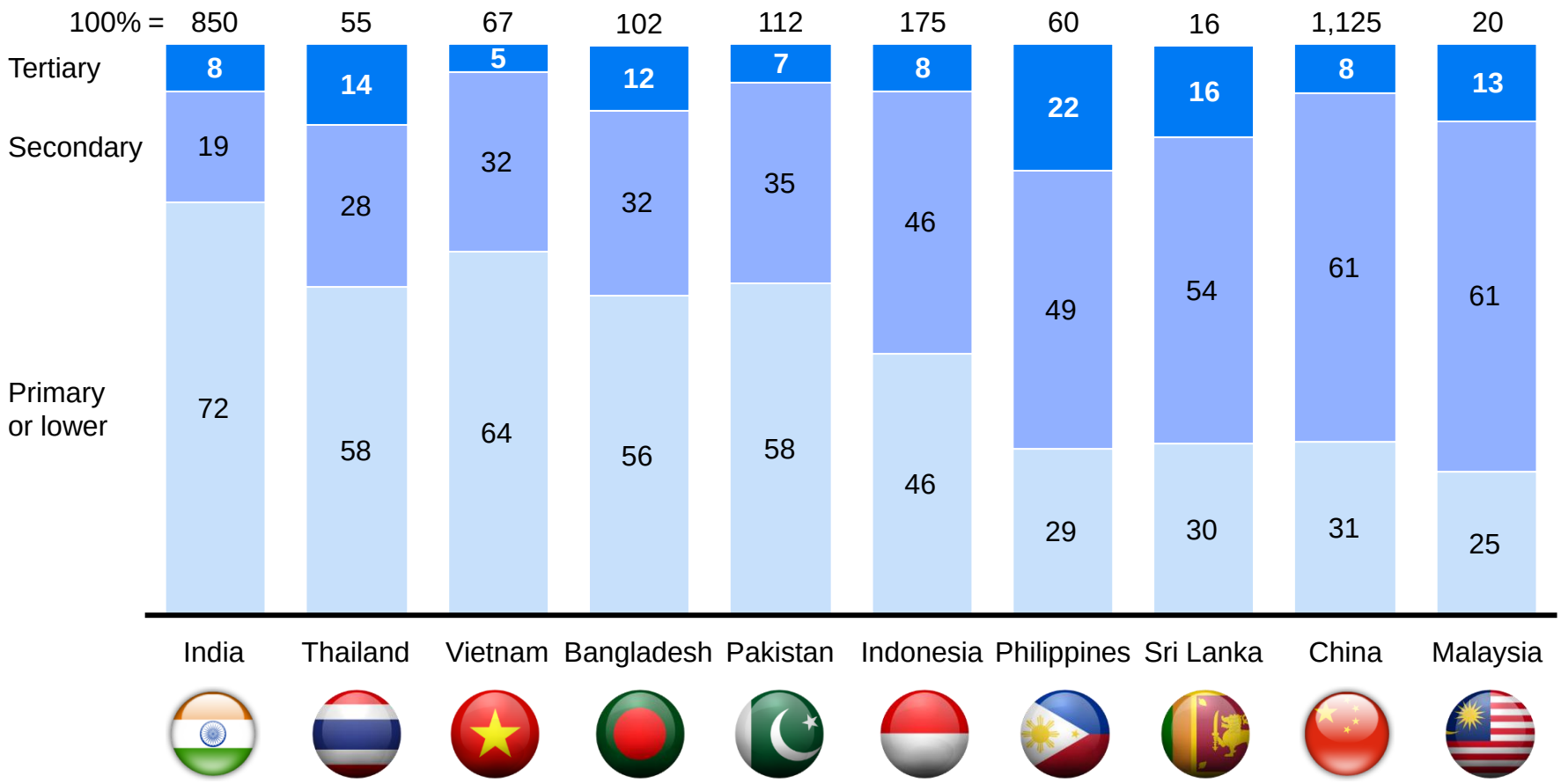


1 Defined as ratio of output of tertiary graduates in year 'n' to output of secondary graduates in year 'n-2'.
2 Includes projected addition of 18.6 million tertiary graduates over 2011-2020 through adult education under both "momentum" case and "accelerated" case, compared to addition of 15 million over 2001-2010

SOURCE: UN Population Database, China National Bureau of Statistics, McKinsey Global Institute analysis

Several developing Asian countries have low rates of secondary schooling

Educational attainment
Percent of working age population; million people, 2010

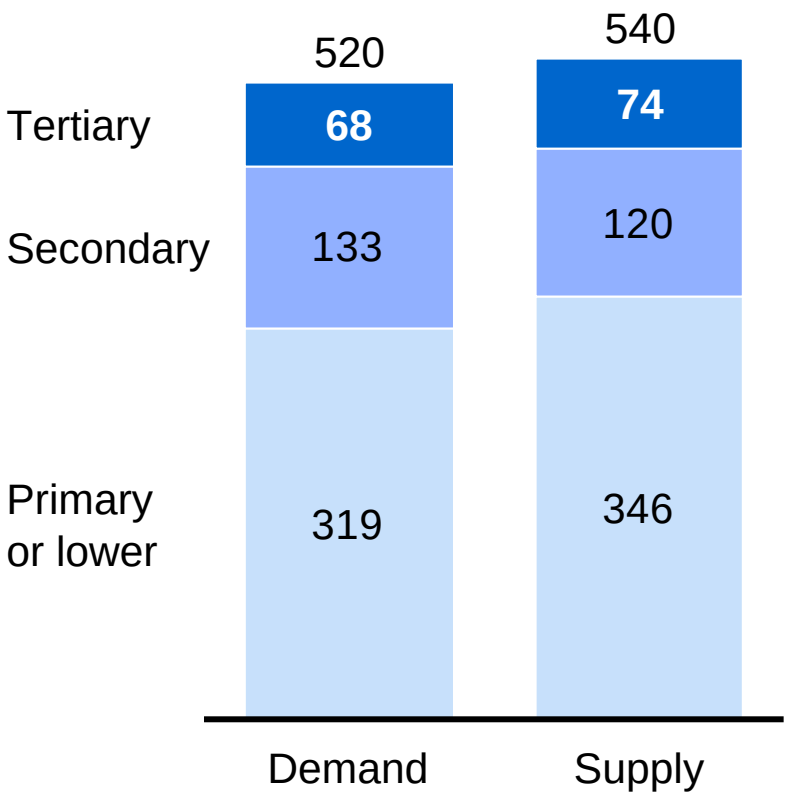


NOTE: Numbers may not sum due to rounding.

SOURCE: United Nations Population Division (2010 revision); IIASA; ILO; local statistics for India and China, McKinsey Global Institute analyses

Economies like India are likely to have too few mid-skilled workers and not enough job opportunities for low-skill workers

Comparison of projected labor demand and supply, 2020E
Million workers



Gap		
	Million workers	%[1]
Tertiary	+6	+8
Secondary	-13	-10
Primary or lower	+27	+7

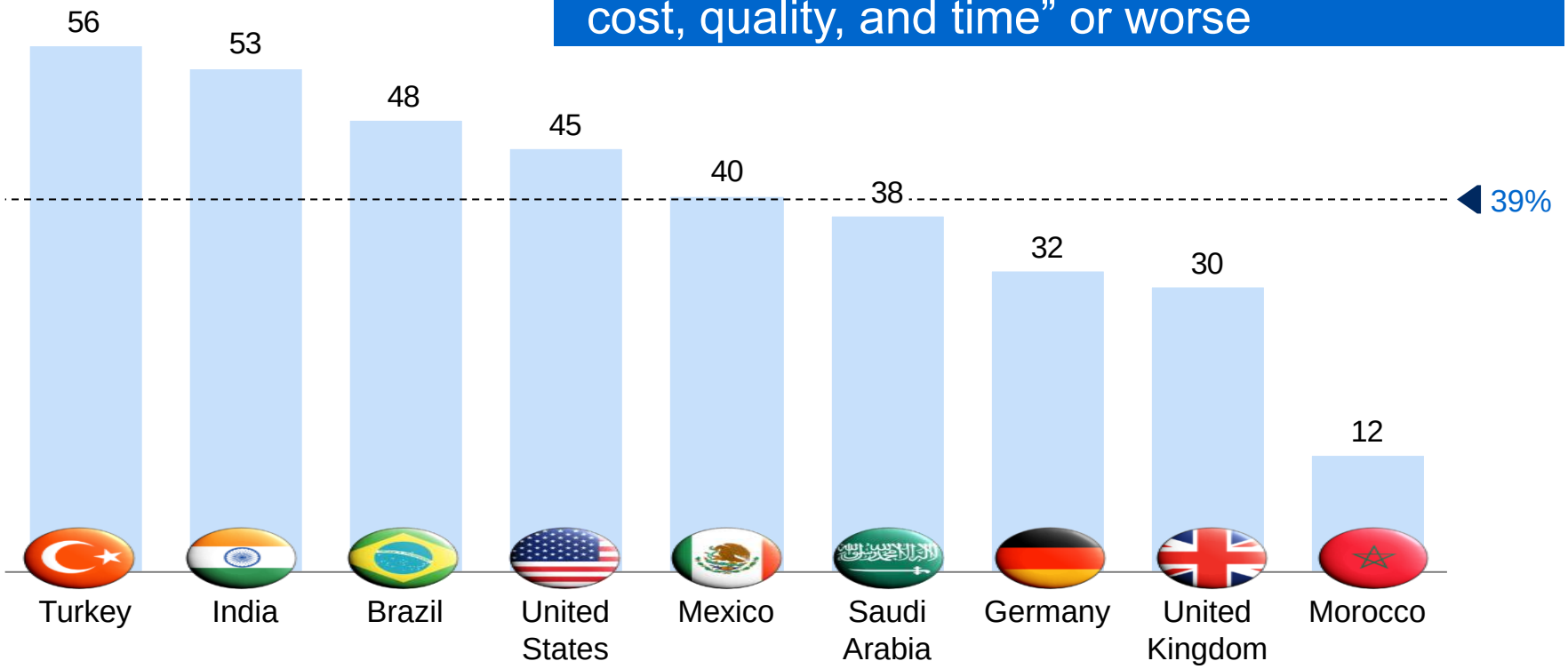
1 Gaps are percent of demand for shortages, and percent of supply for surpluses.
NOTE: Numbers may not sum due to rounding.
SOURCE: National Sample Survey Organisation; India Census; Ministry of Human Resources and Development; McKinsey Global Institute analysis

Across a range of countries, 39% of employers say a skills shortage is a leading reason for entry-level vacancies

Lack of skills is a common reason for entry-level vacancies

% of employer respondents

36% of employers also reported a lack of skills caused "significant problems in terms of cost, quality, and time" or worse

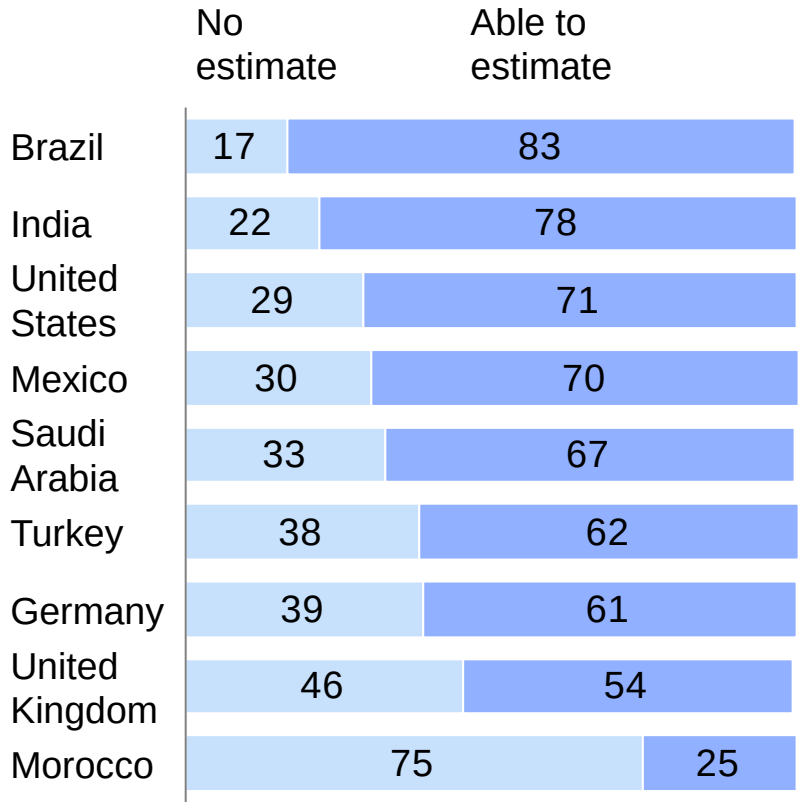


SOURCE: McKinsey survey, Aug-Sept 2012, "*Education to Employment: Making the system work*", McKinsey & Company, 2012

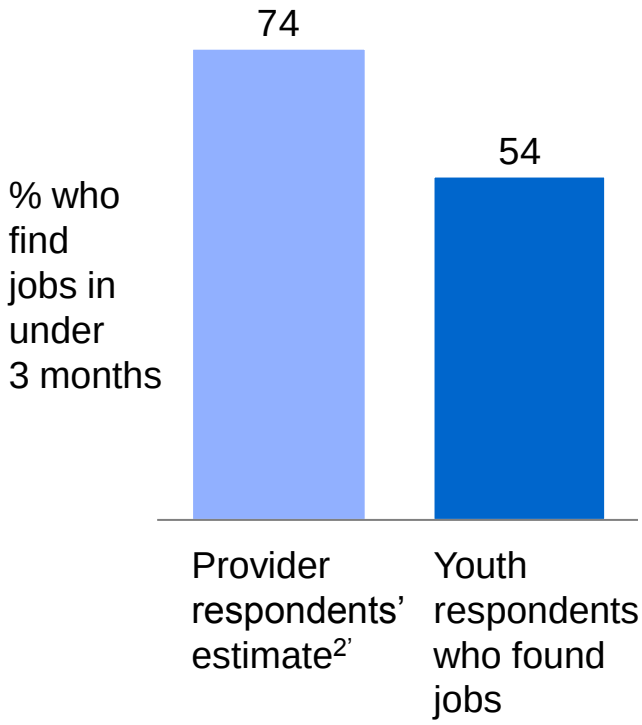
But educational providers, employers and youth live in parallel universes - for example, providers do not systematically estimate job-placement rates

Provider perspective on job-placement rates and length of time to find a job[1]

% of respondents able to estimate their graduates' placement rates



% of respondents



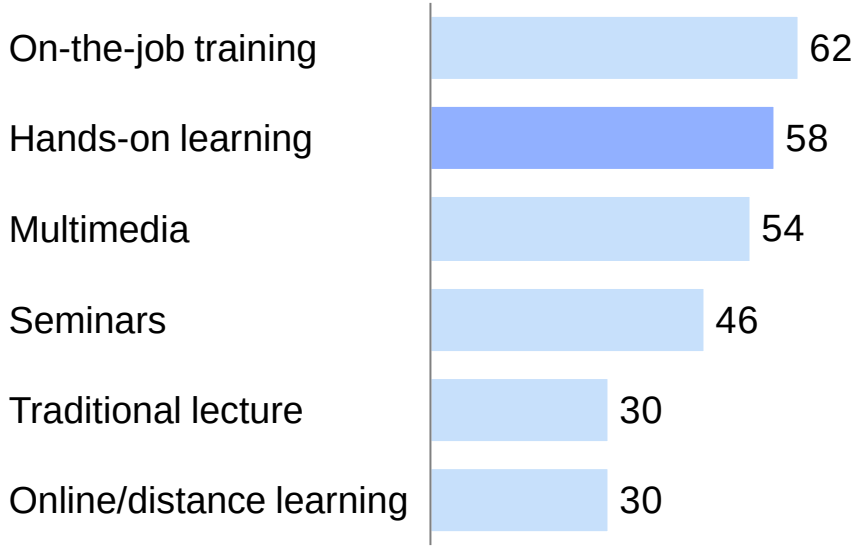
1 On average, what percentage of graduates from your institution find employment within 3 months of program completion?
2 74% of employers said that over half of their graduates found jobs within 3 months, as compared with 54% of youth who did find jobs who said it took them 3 months .

SOURCE: McKinsey survey, Aug-Sept 2012, "*Education to Employment: Making the system work*", McKinsey & Company, 2012

Young people prefer hands-on learning, but not many providers are geared to deliver this

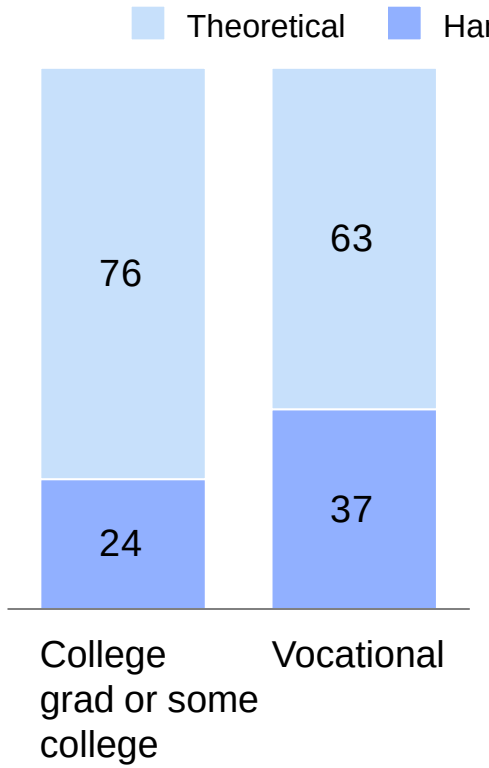
Most effective instructional techniques[1]

% of respondents saying technique is effective



Use of hands-on learning in academic and vocational institutions[2]

% of respondents indicating a majority of hours spent in learning methodology



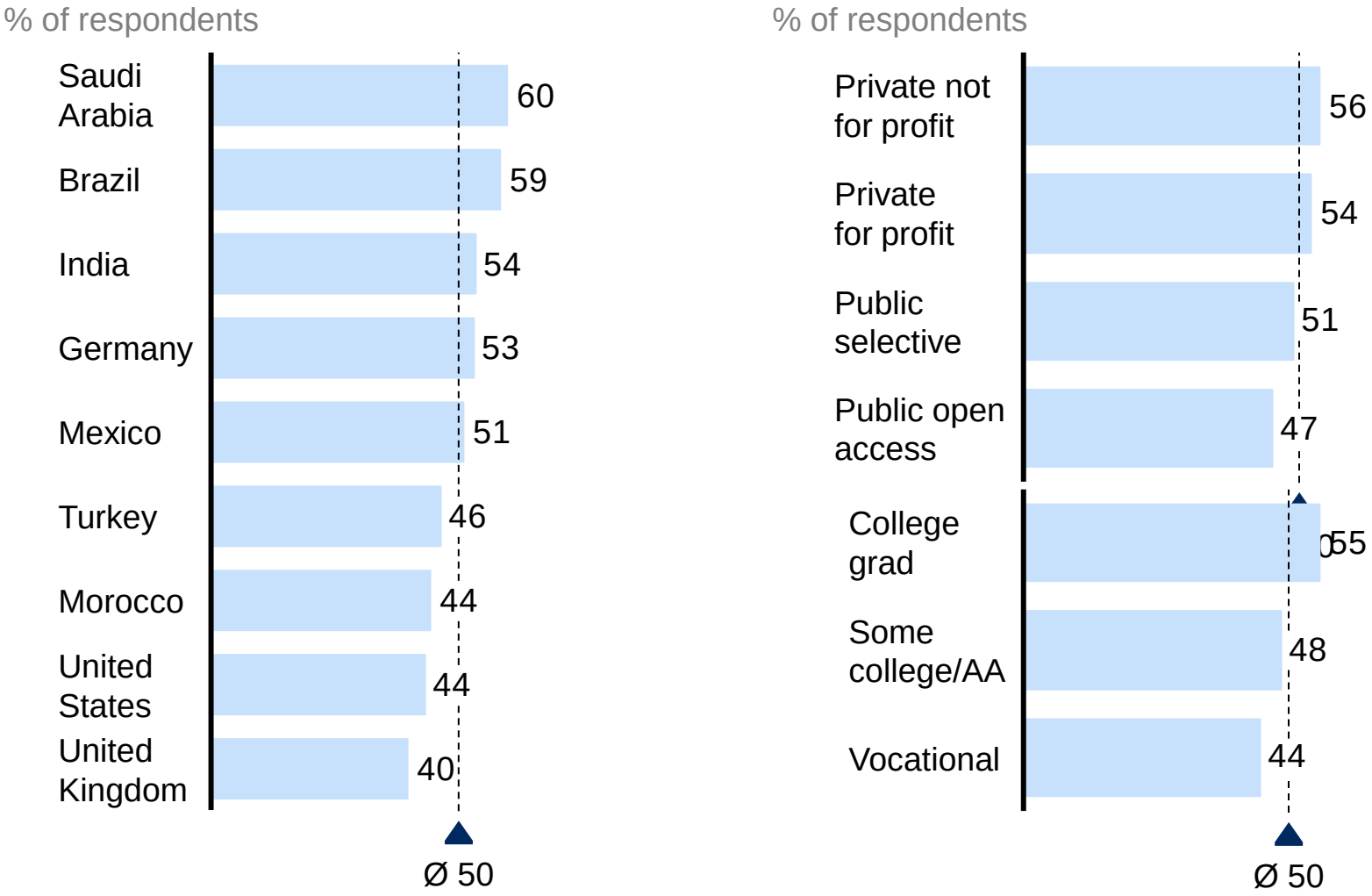
1 Now I'm going to read out a number of different instructional techniques. I want you to rate how effective each technique is for your learning, using a 11-point scale, where 0 means the technique is not at all effective and 10 means the technique is very effective. If you have not been exposed to this technique, please respond "no exposure."

2 On average, how much time did you spend in your academic program engaged in practical, hands-on learning versus theoretical learning? Please think about this in the context of every 10 hours you spent learning and indicate how many of those hours were practical (e.g., on-the-job training, simulations, etc.) and how many were theoretical (in the classroom).

SOURCE: McKinsey survey, Aug-Sept 2012, "*Education to Employment: Making the system work*", McKinsey & Company, 2012

As a result, only half of youth believe that their post-secondary studies improved their employment opportunities

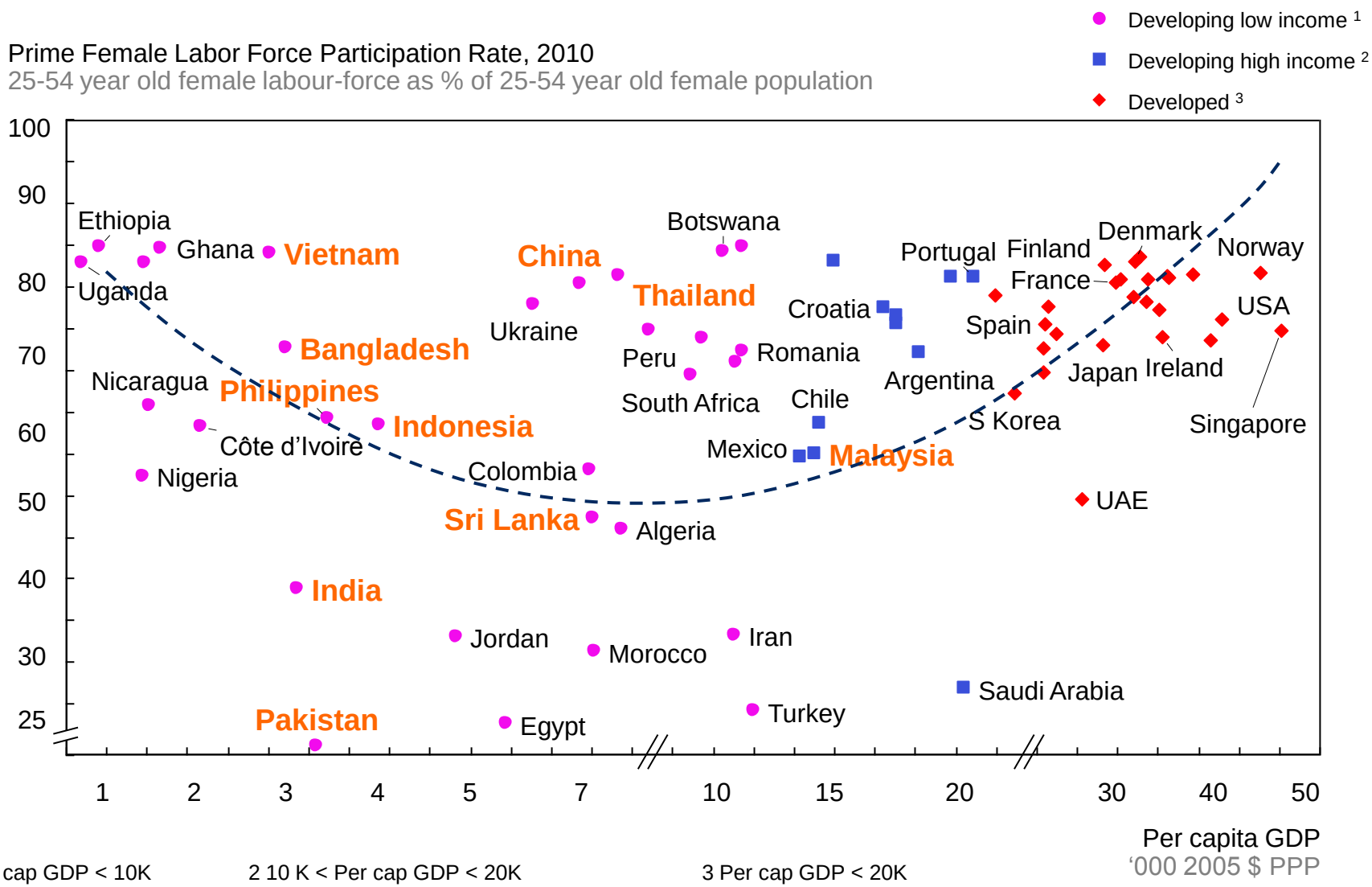
Students who believe their postsecondary studies improved their employment opportunities[1]



1 My post-high-school education improved my chances of getting a job.

SOURCE: McKinsey survey, Aug-Sept 2012, "*Education to Employment: Making the system work*", McKinsey & Company, 2012

Women's workforce participation would potentially rise if the education-to-employment continuum worked well



1 Per cap GDP < 10K 2 10 K < Per cap GDP < 20K 3 Per cap GDP < 20K

Note: Values for both per capita GDP and female participation plotted on log scales

SOURCE: United Nations population division; ILO; Global Insight; local statistics for China and India; MGI analyses

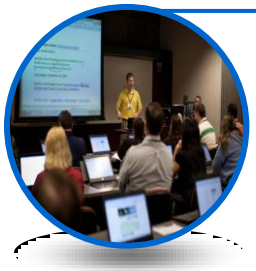
Two parts to a critical labor agenda for policy-makers (1/2)

1 A global 'education revolution'

Raise secondary school capacity and attainment in developing countries by leveraging private investment for school construction and radical new models for teacher hiring and training (e.g., Korea)

Align education with employment demand e.g. more STEM degrees, certification programs in high-demand occupations such as health-care

Make intersections happen along the education-to-employment continuum Employers to design curricula and offer faculty, education providers to ensure students spend more time on job sites and secure hiring guarantees; employers to commit to hiring youth before they are enrolled in programs to build skills.



Adopt a "new technology" of education to increase productivity, reach and quality through online, open access and free education models (e.g., Harvard/MIT's edX)

Two parts to a critical labor agenda for policy-makers (2/2)

2 Create more jobs for low-and medium-skill workers

"Marketize" informal sector jobs (e.g., home production and elder care) to bring these jobs into the formal labor market (e.g., Sweden's tax deduction for household services, Germany's mini-jobs)

Increase employment in labor-intensive manufacturing in developing economies by moving from raw materials to finished goods, and reforming the business environment to improve export competitiveness (e.g., Bangladesh)

Encourage "frugal innovation" that stimulates demand and penetration in rural, low-income markets, creating sales and service jobs (e.g., telecom in India and Africa)

Reduce barriers to housing and infrastructure projects to directly create low-skill construction jobs, as well as jobs in feeder industries such as cement

Lower barriers to growth and job creation e.g., time and cost of starting business, restrictions on kind of work that can be performed by less-skilled workers