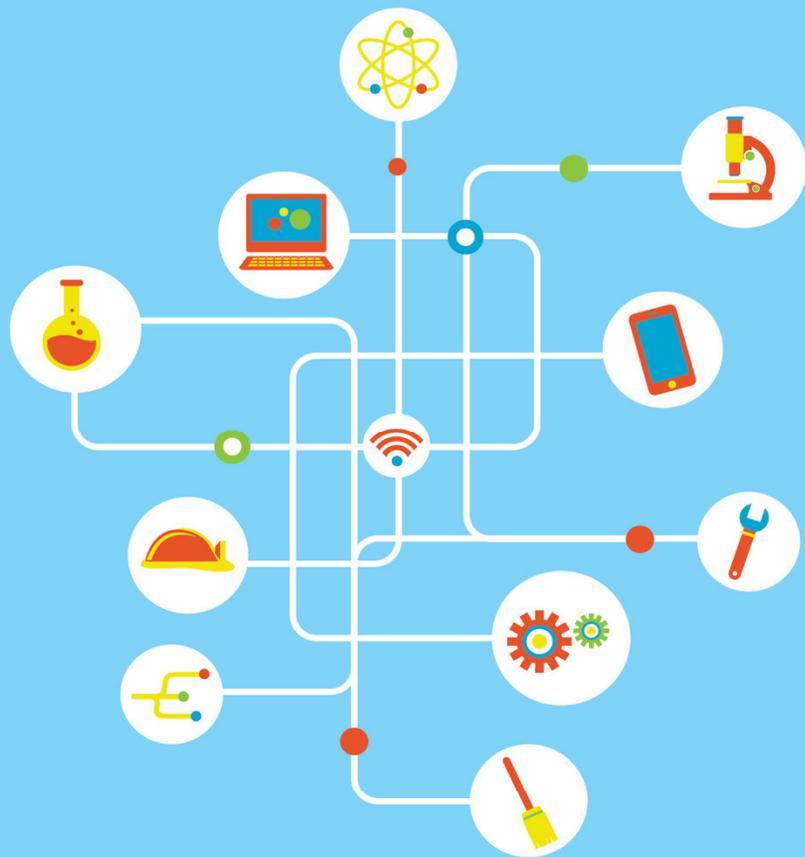


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A Smarter Future
Skills, Jobs, and Growth in Asia

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20 September 2016

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A Smarter Future **Skills, Jobs, and Growth in Asia** *Session 6*



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Storyline

- While developing Asia has made large strides in expanding school enrollments (**quantity**), it must make more efforts in improving learning outcomes (**quality**).
- On the supply side, central to improving educational quality: Information; attention to curriculum content; early childhood education
- On the demand side technology and trade, industrial, and labor market policies all come in to the picture



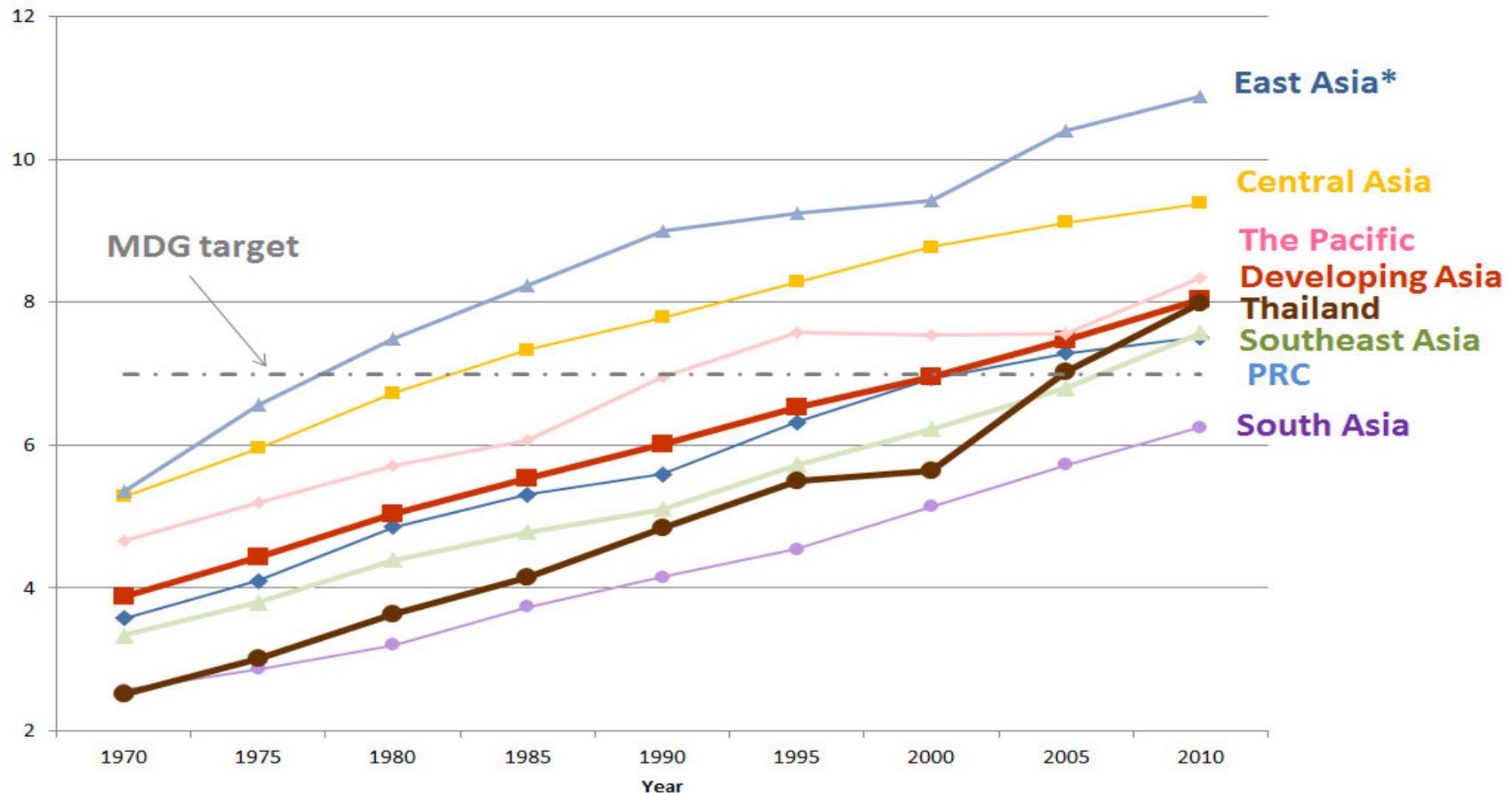
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Educational attainment has risen substantially

Average Years of Schooling
(Developing Asia)



* Excluding PRC

Source: Barro -Lee website. <http://www.barrolee.com>. (accessed Oct 2015).



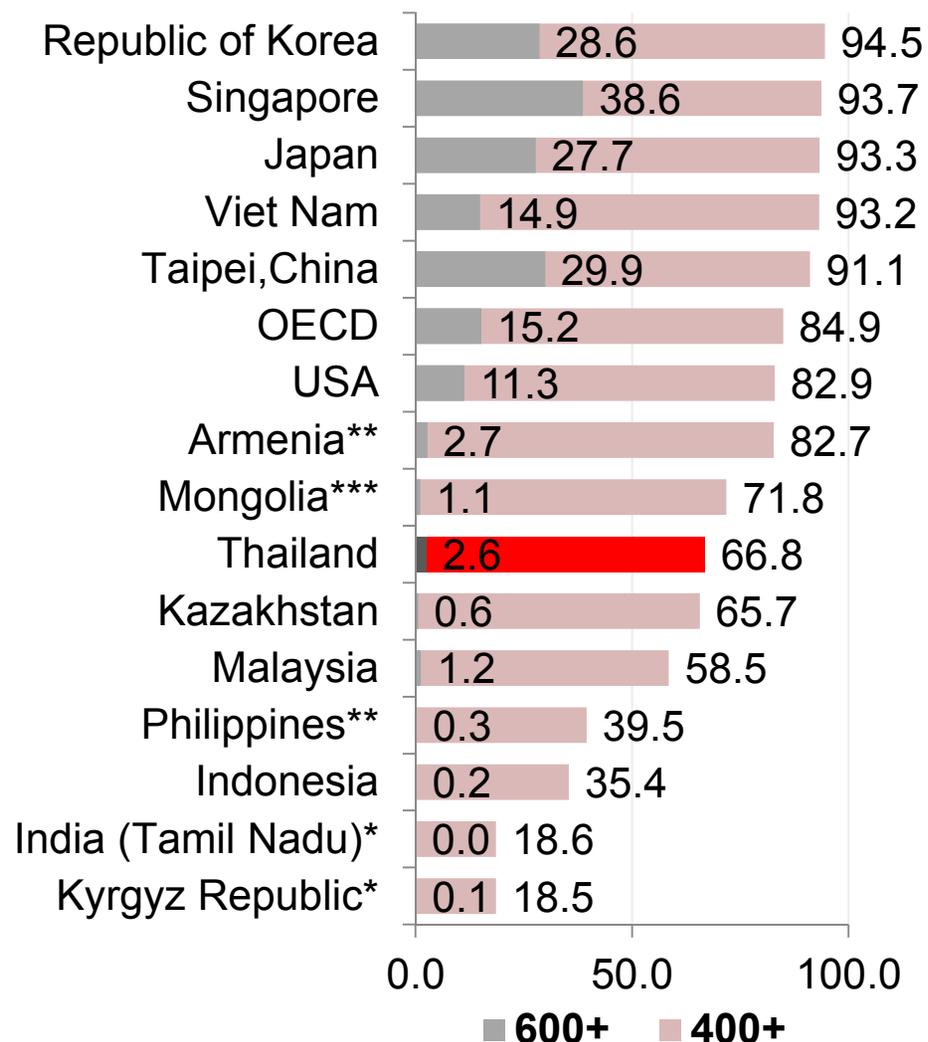
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But educational quality is highly variable

- PISA/TIMSS test scores representative of students age 14-15
- 400 = basic cognitive skills
- 600 = top-level cognitive skills

Test Scores (Science-Mathematics)



Source: PISA 2009* and 2012; TIMSS 2003**, TIMSS 2007***



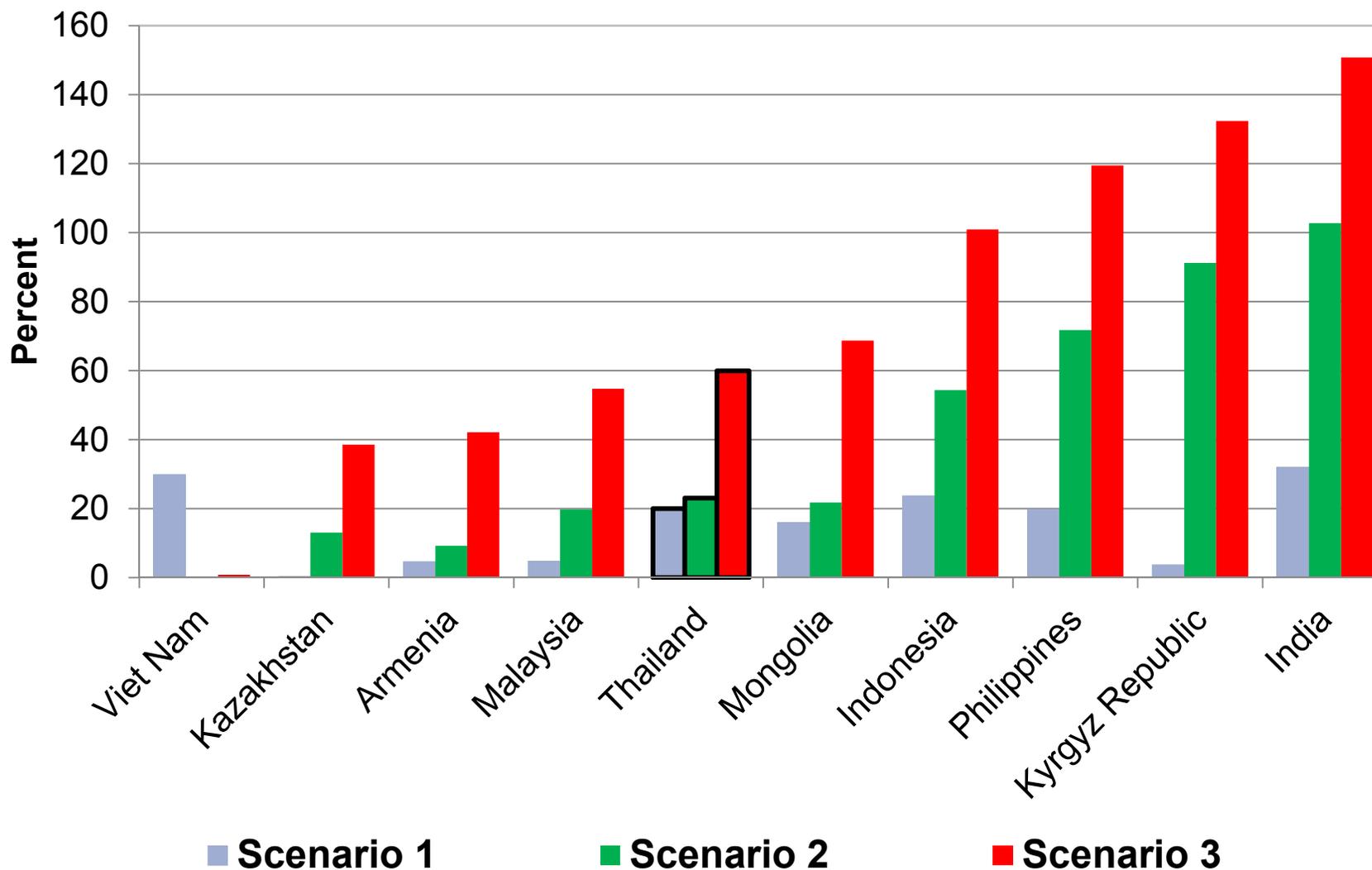
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Attention to quality has large payoffs for growth

Cumulative Percentage Increase in GDP per capita by 2045



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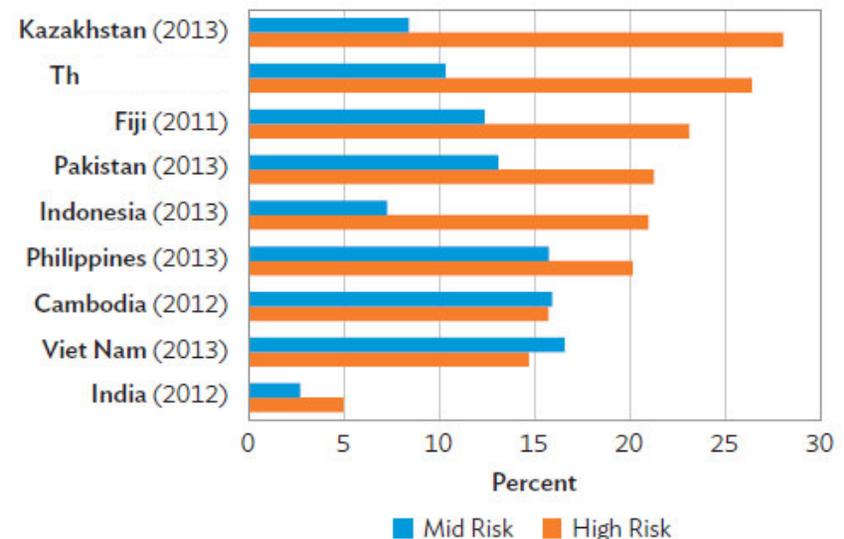
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Quality is likely to grow in importance

- ❑ “Automation anxiety”: Future jobs may not be the same as today’s
- ❑ A solid foundation of cognitive & noncognitive skills
 - ❑ Adapt to new technologies
 - ❑ Acquire new technical skills

Figure 2.12: Share of Jobs Facing Possible Job Destruction



Notes: Mappings from standard occupational classification (SOC) codes 2010 to ISCO-08 at 3- or 2-digit level used. Employee weights used. Only regular employees assumed to be at risk for job destruction.

Source: ADB estimates using data from labor force surveys and Frey and Osborne (2013) computerization probabilities.



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What features of an education system produce good skills?

An exploratory initiative to let the data speak

- Develop 200+ indicators of educational inputs at various levels of education
- 67 economies globally had taken PISA/TIMSS tests; indicators related to basic education collected.
- For 23 Asian economies, indicators documented in basic, TVET, and higher education are compiled



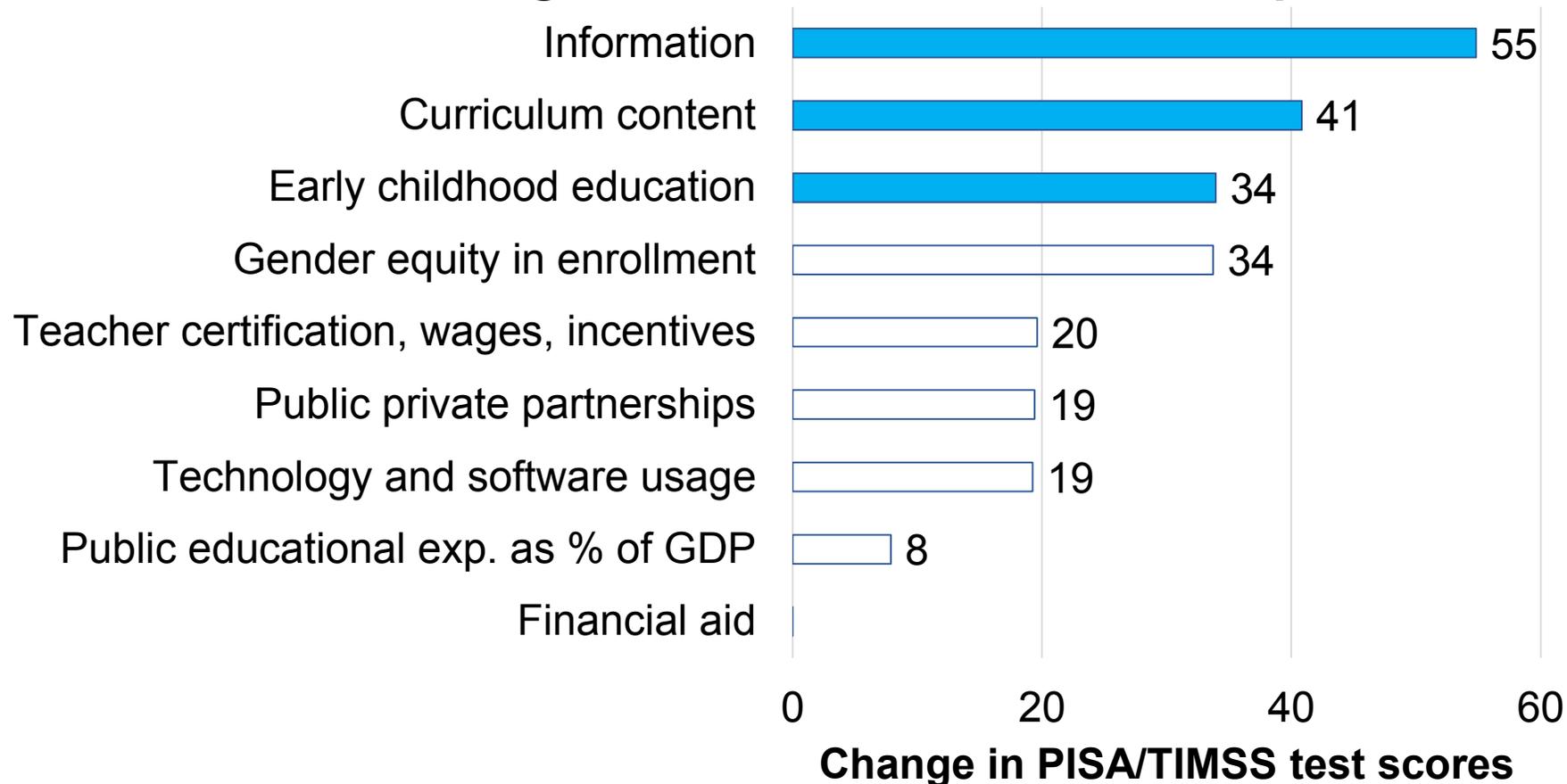
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Which inputs matter more for cognitive skills?

Moving indicator from bottom 3 to top 3 DMEs



Notes: (1) Information is comprised of Data for Evidence-based Policy Decisions (National) and Information for Basic and Upper Secondary Education



What should quality information capture?

- Performance on standardized tests (national or international)
- Data to monitor school, teacher, students over time
- Synthesized and shared with students and parents in clear and concise form
- Education management information systems enables ease of analysis

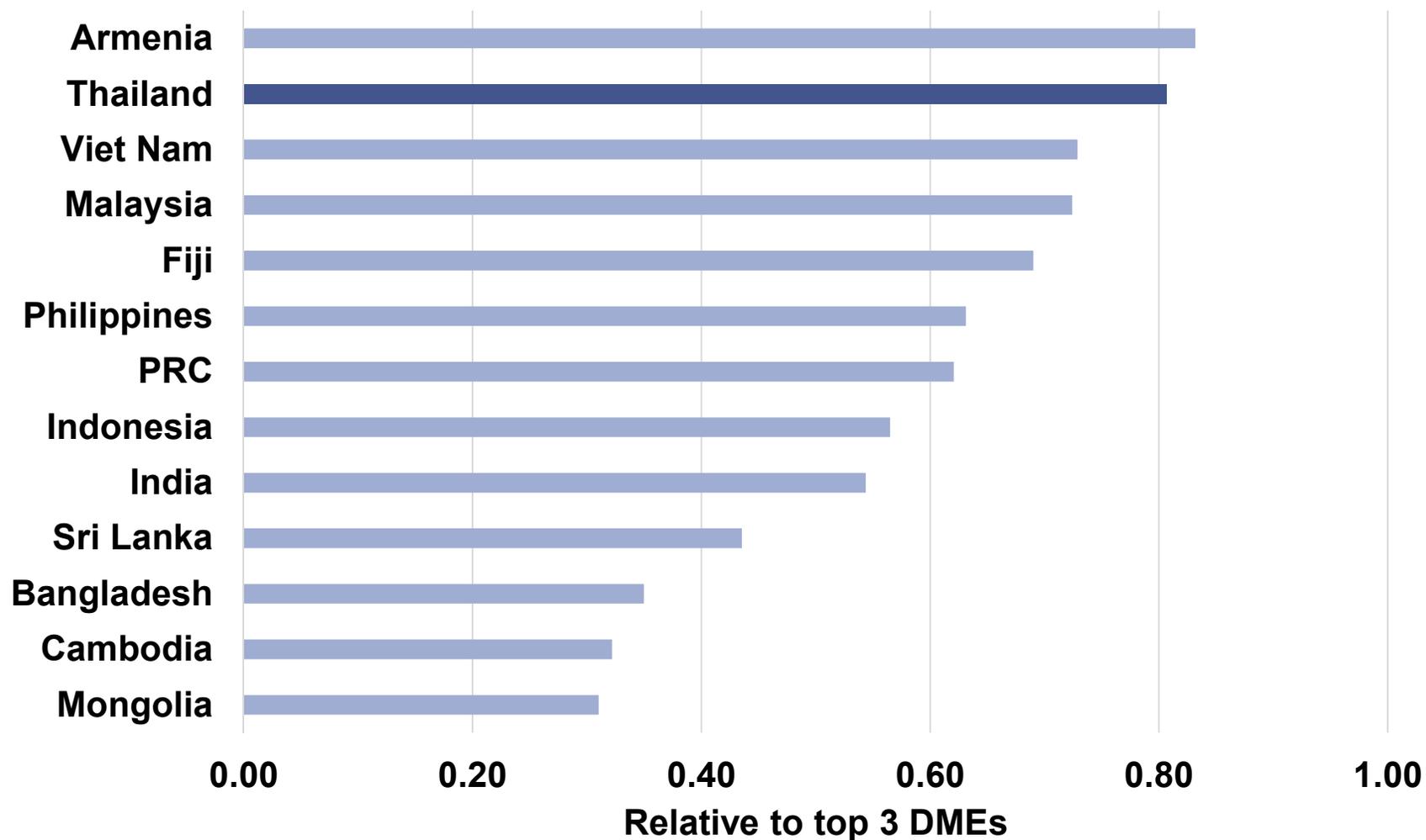


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Scope to improve information systems



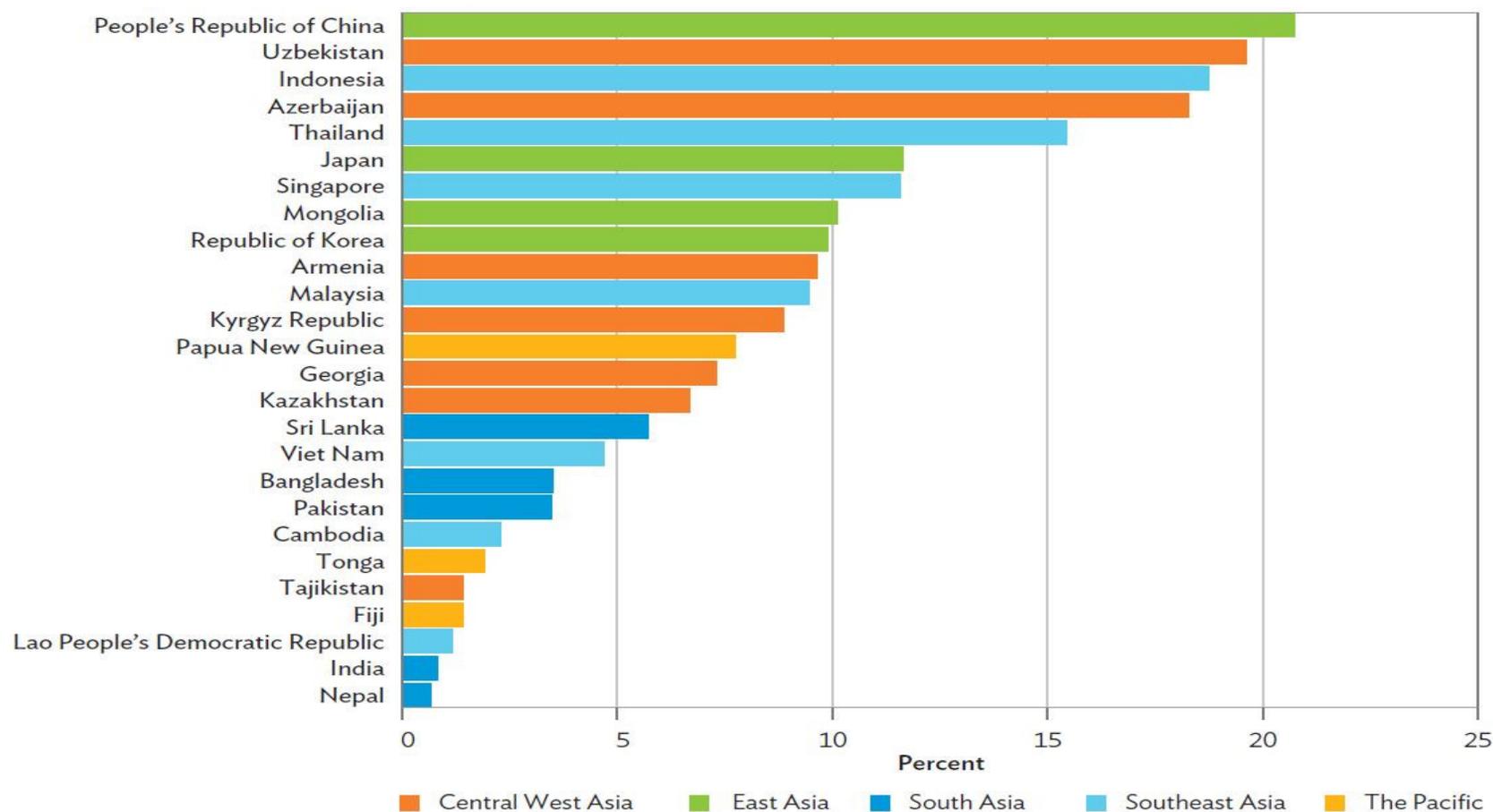
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Future research on TVET is important

Figure 5.4: Share of Secondary TVET students



Source: World Bank EdStats. UNESCO (2007). Data for most recent year available.



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Firms play a crucial role in the skills development process

Evidence from the US: 20%-60% of skills are developed in firms and on-the-job

But, not any job will do

- The type of ***firm*** a job is in matters
- The type of ***contract*** a worker has matters



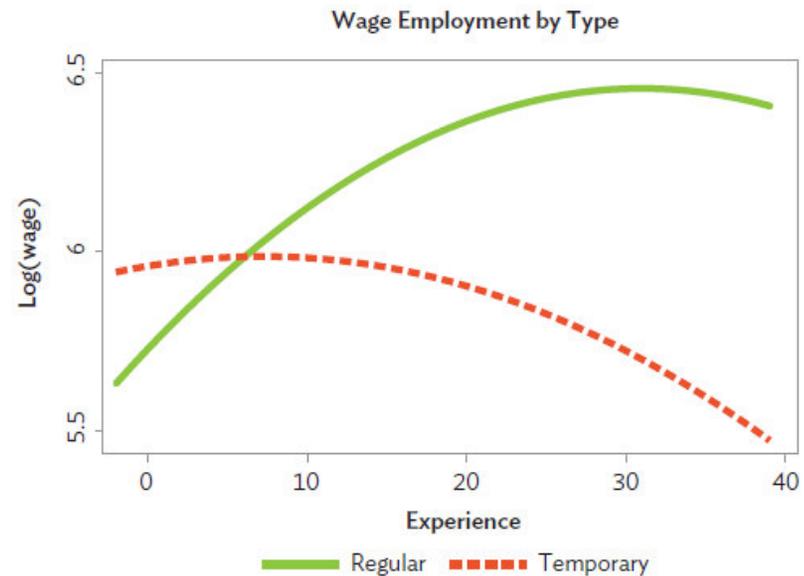
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Working in larger/formal firms seems to develop more marketable skills

More stable forms of employment are associated with acquisition of skills. A regulatory regime that reduces labor contracts to a 0-1 is counter-productive.



Note: Plotted wages for sample of male workers in nonpublic sector only. Estimates from log monthly wage regressions controlling for experience, squared experience, education, cohort group, and calendar year fixed effects. Left chart includes type of employment while right chart includes an indicator for the firm having at least 20 employees.

Source: ADB estimates using data from India Labor Force Surveys (2000, 2005, and 2012).



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Key messages

- The importance of quality
 - A key role for improving information and dissemination of learning outcomes
- TVET: More rigorous evaluations will help find the most effective approaches
- Firms have a critical role to play in skills development
 - Policies that (i) discourage modern/formal firms from coming up and (ii) lead to extremes in contracts should be avoided



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KEY INDICATORS FOR ASIA AND THE PACIFIC 2015 46TH EDITION

SPECIAL CHAPTER
A SMARTER FUTURE: SKILLS, EDUCATION,
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Thank you!



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