

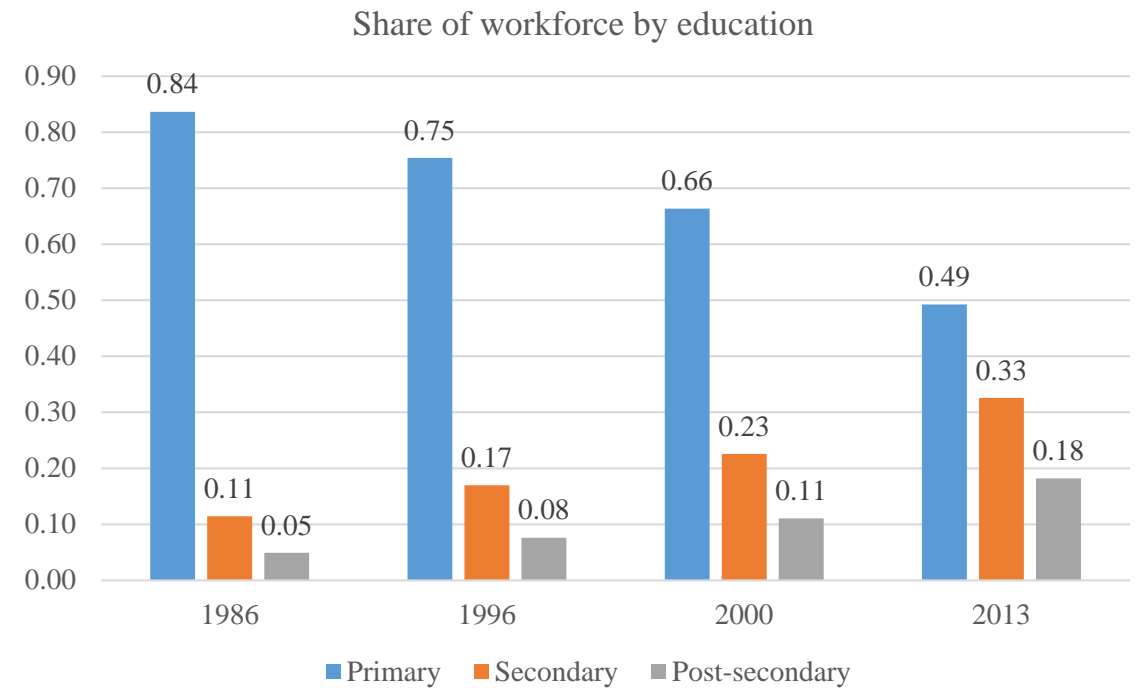
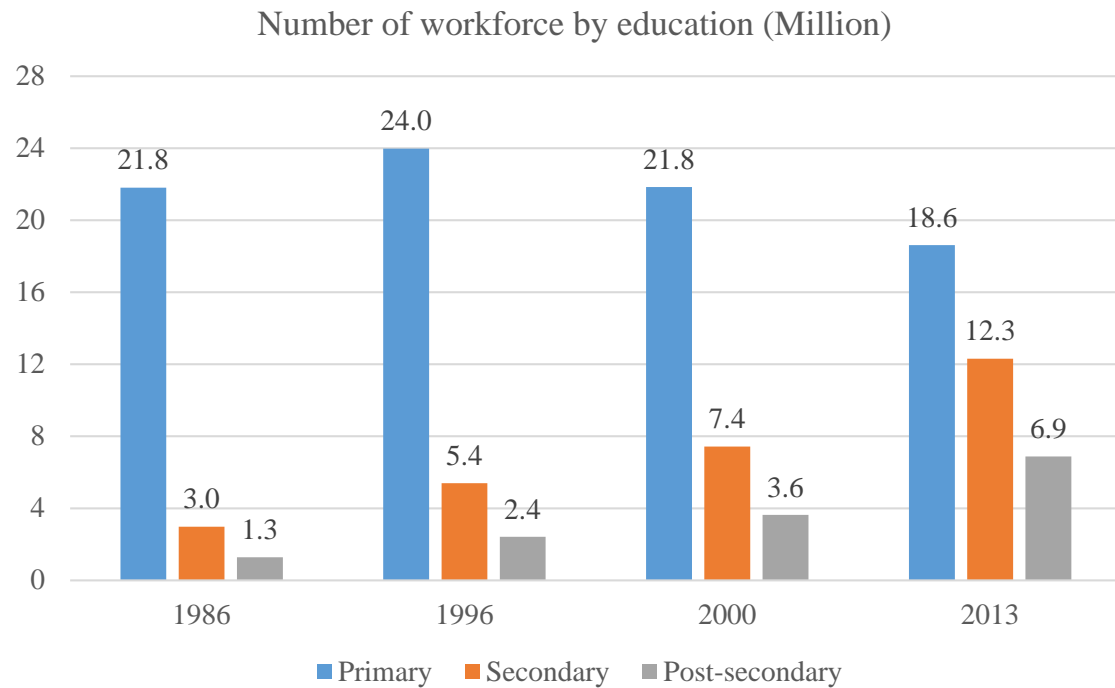
Have we reached our potential? A perspective from worker- and firm-level data

Dilaka Lathapipat



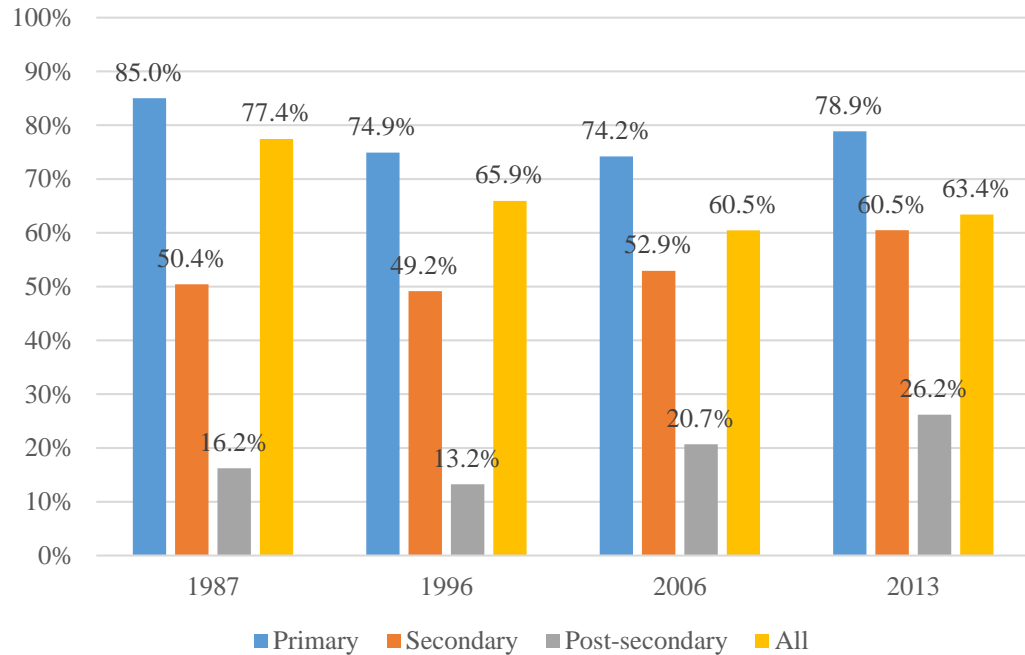
WORLD BANK GROUP

Thai workforce educational attainment (years of schooling) has improved significantly in the last 3 decades

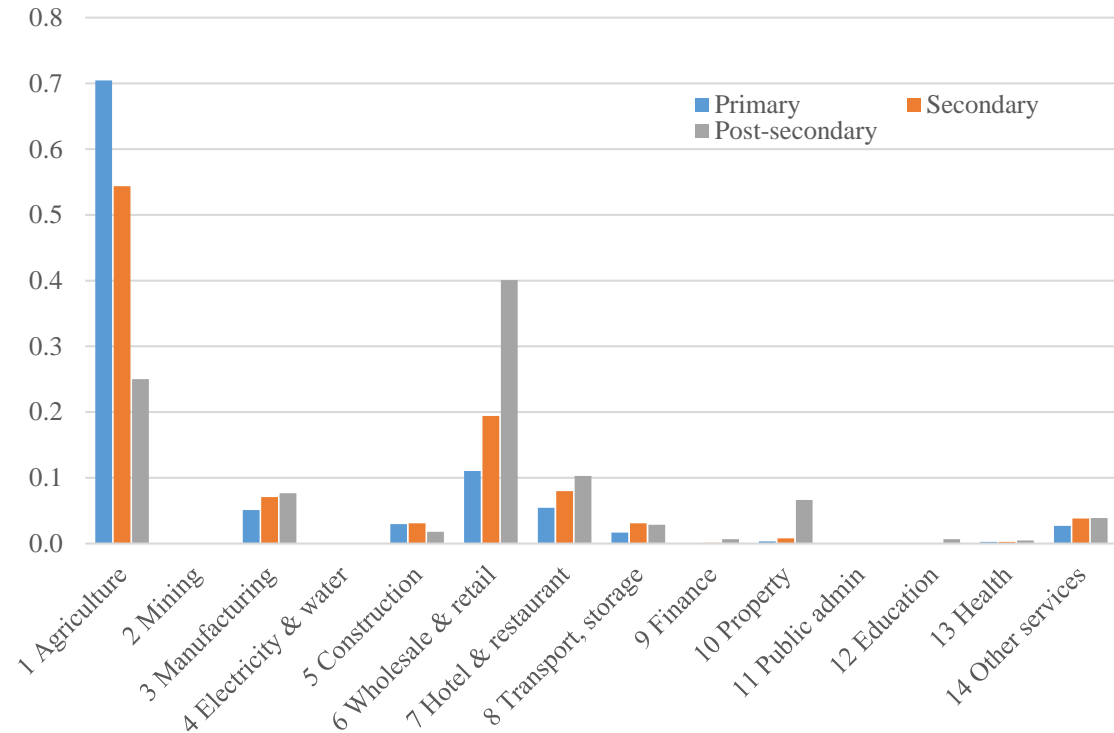


Another indicator of job quality is the share of informal work in the economy

Share of All Workers in Informal Jobs

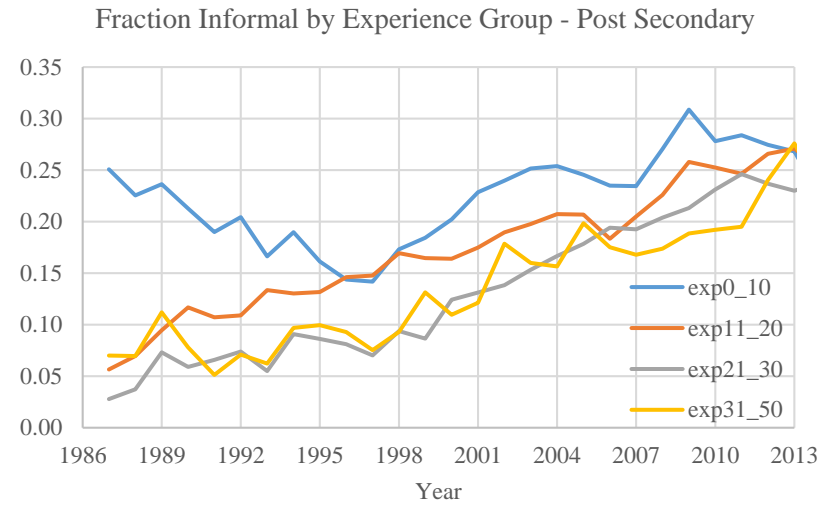
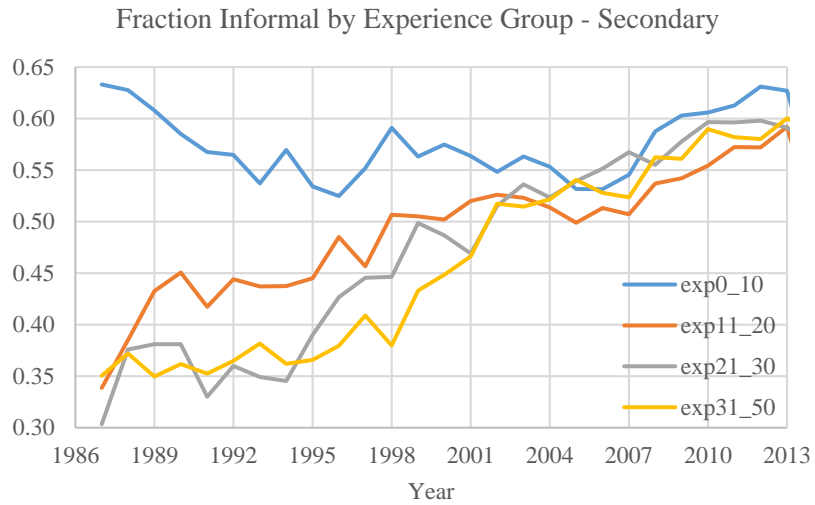
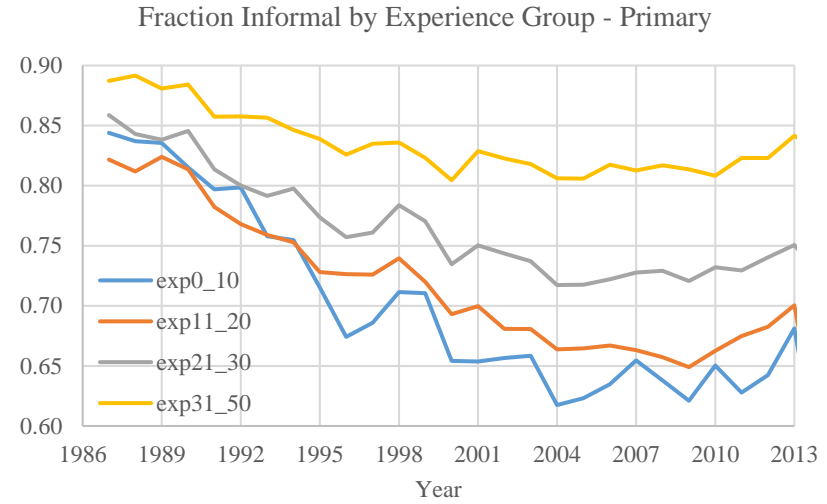
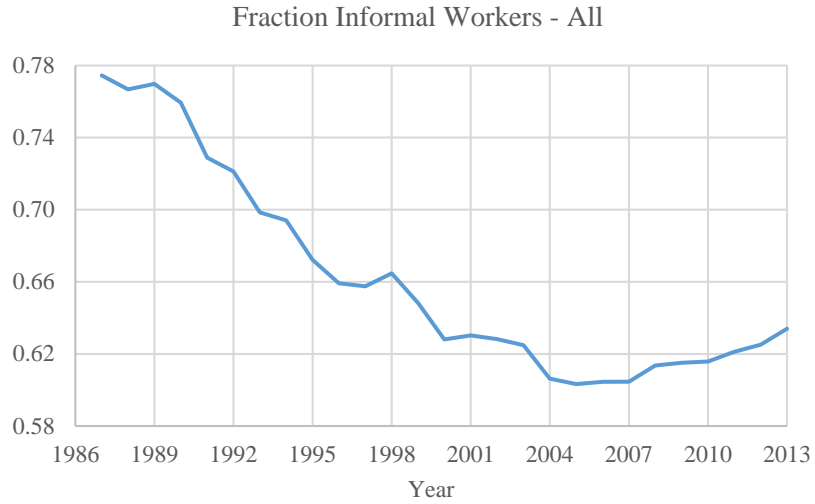


Fraction of Informal Jobs by Economic Activities and Education in 2013

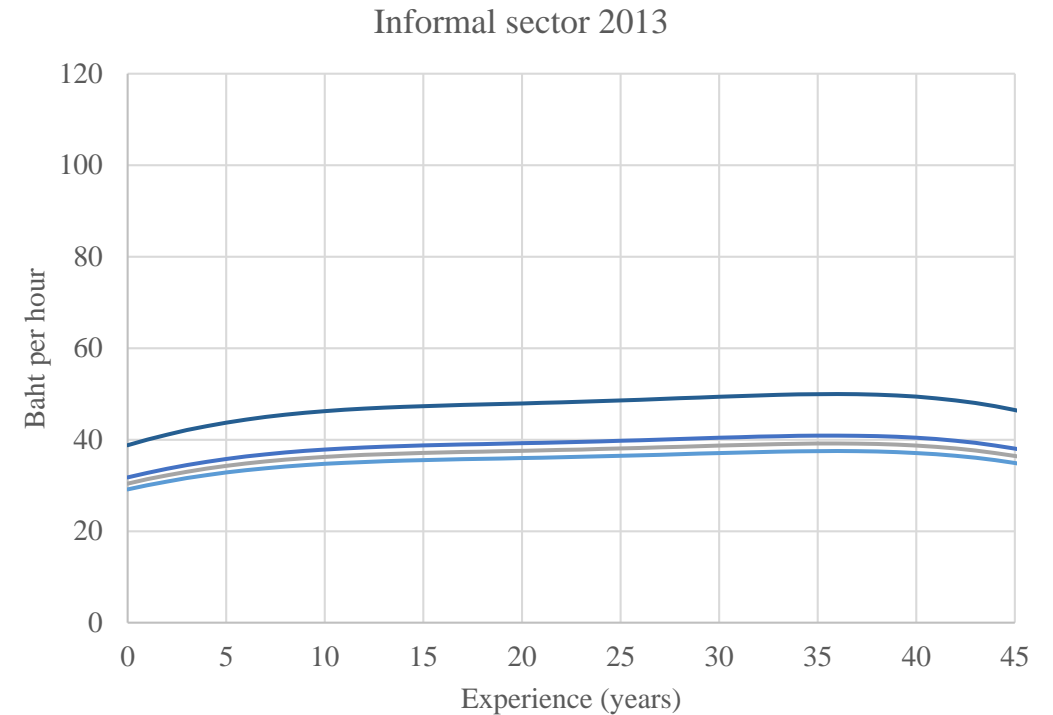
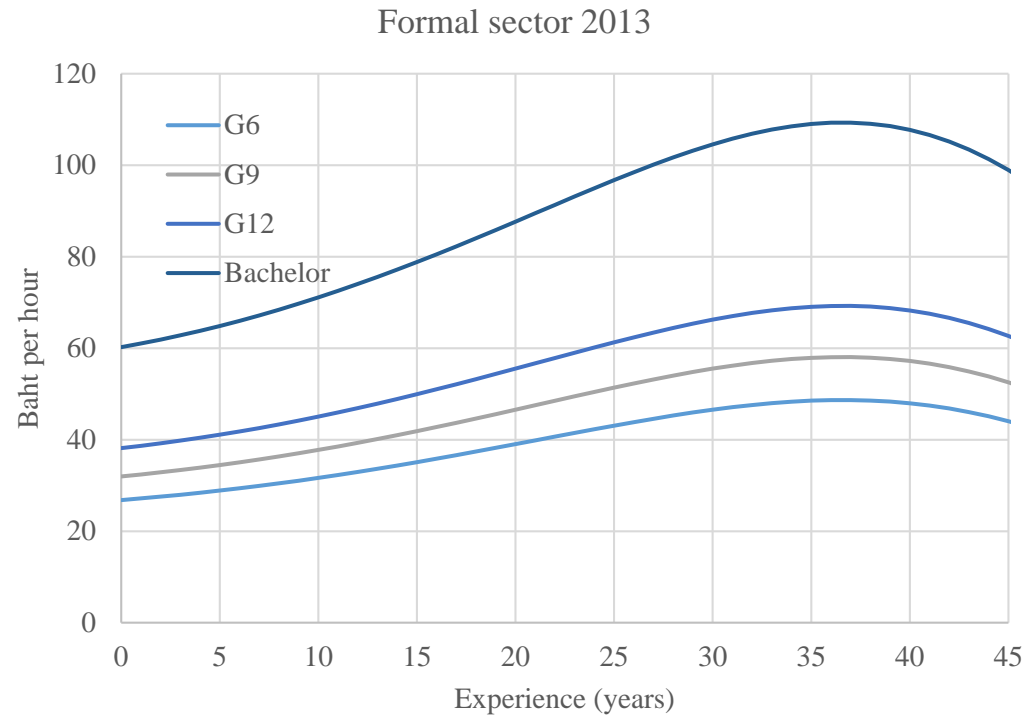


- More highly educated workers are finding employment in the informal sector

Fraction of Workers Working in the Informal Sector by Education and Experience Group



Estimated Real Hourly Wage-Experience Profiles for Selected Representative Workers in the Formal and Informal Sector

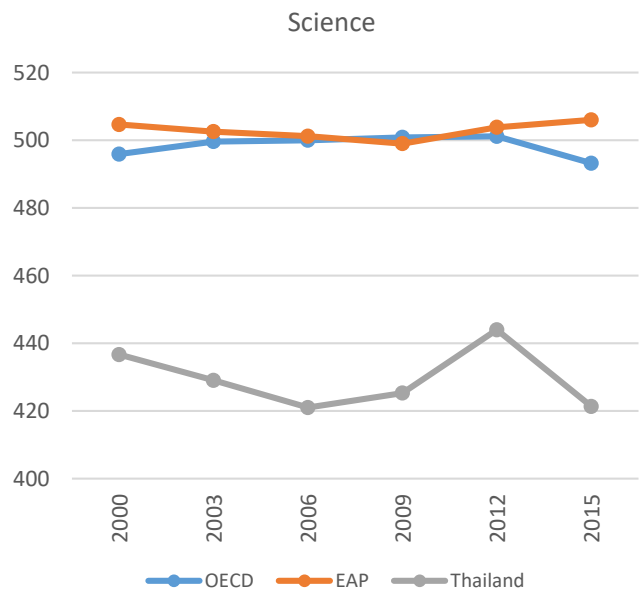


- This is very concerning as the experience-earnings profiles of informal workers are much flatter than those of formal workers

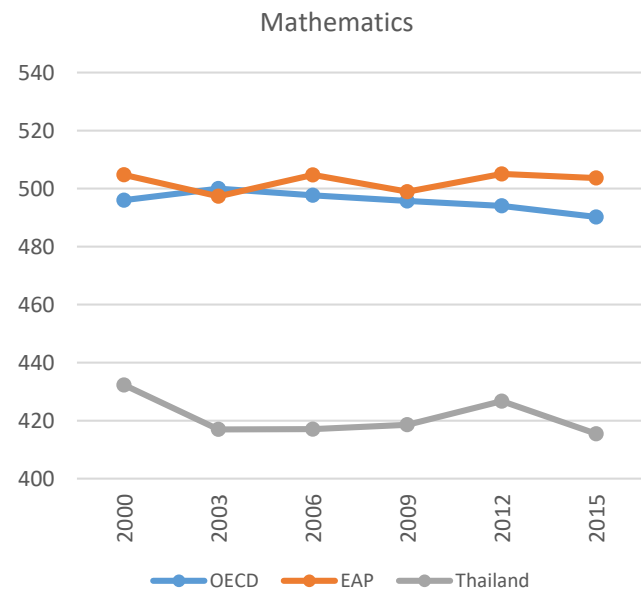
Why do we observe more highly educated workers moving down the occupational skill ladder by working in jobs requiring lower skills?

A better indicator of workforce skills than years of schooling or occupational status is available from international student assessments such as PISA

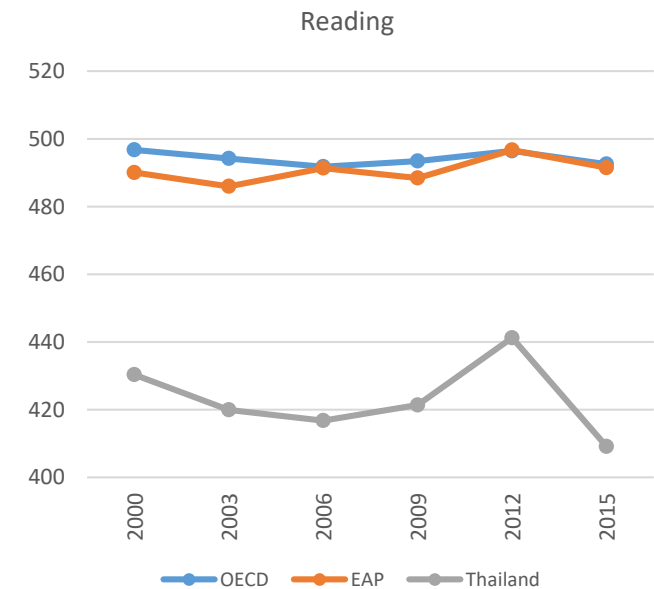
Trends in Student Learning Outcomes in the Three PISA Domains – 2000-2015



Source: OECD PISA

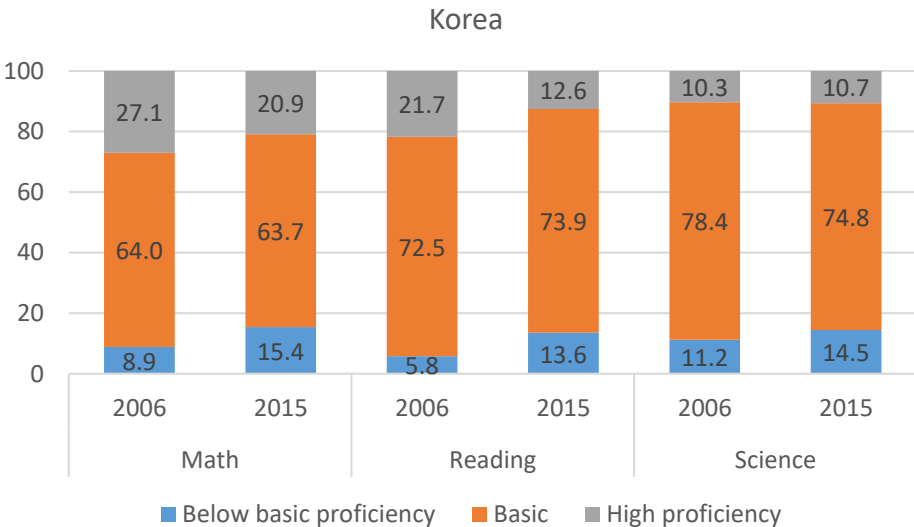
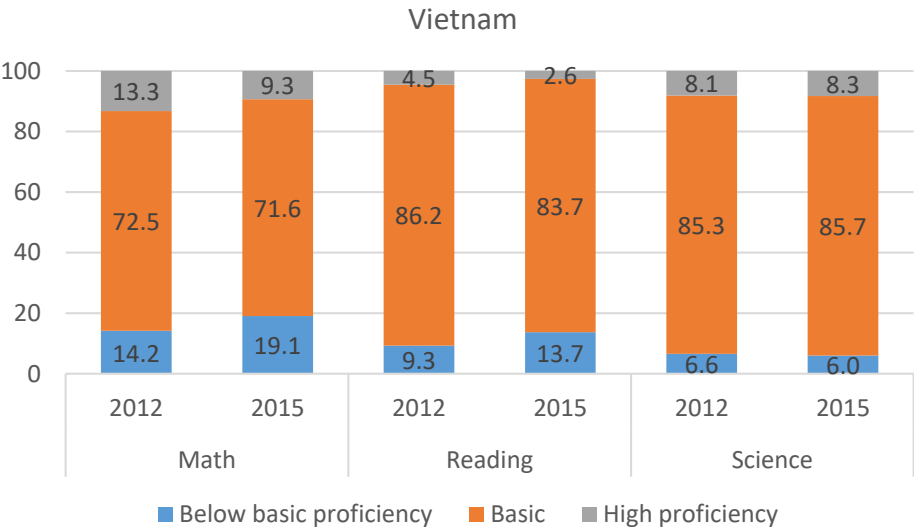
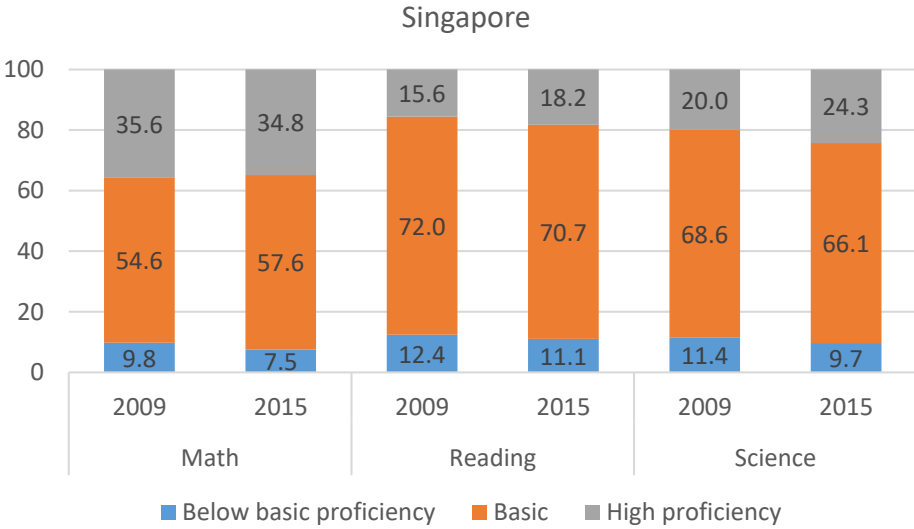
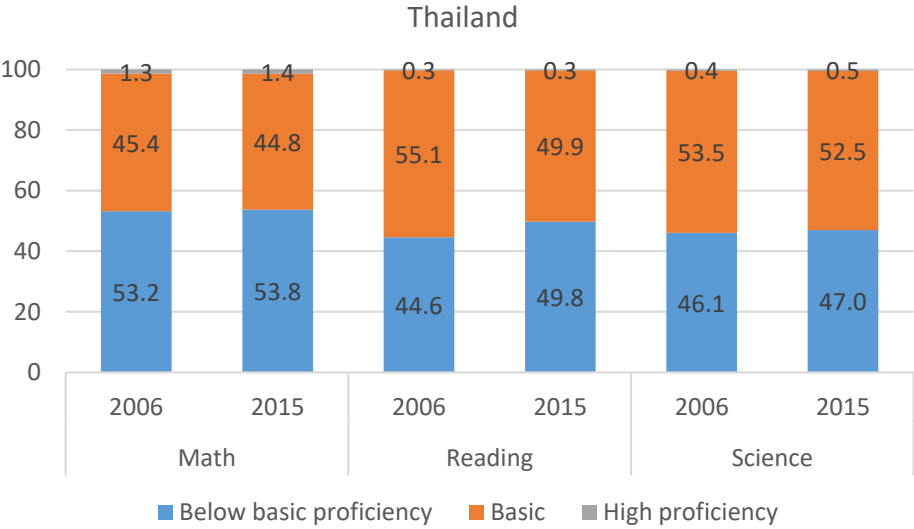


Note: EAP for East Asia and Pacific



- Thai 15 year-old students' performance in each PISA domain continues to lag behind the OECD average by 2.5 years and behind the regional average (EAP) by almost 3 years

Around half of the Thai students lack the basic proficiency in reading and critical thinking even though they have been in school for almost 9 year



Highly skilled workforce is extremely important for economic growth

	(1)	(2)	(3)	(4)	(5)	(6)
Years of schooling 2000	0.156*	0.075		0.141*	0.075	
	(0.082)	(0.084)		(0.080)	(0.086)	
Cognitive skills 2000		1.180***	1.374***		1.009**	1.203***
		(0.423)	(0.379)		(0.422)	(0.361)
Log GDP per capita 2000	-0.577**	-0.959***	-0.977***	-0.782***	-1.059***	-1.077***
	(0.237)	(0.237)	(0.236)	(0.269)	(0.243)	(0.241)
Trade openness 2000				0.560***	0.425**	0.424**
				(0.173)	(0.168)	(0.168)
Number of observations	57	57	57	57	57	57
R-squared	0.443	0.521	0.509	0.496	0.549	0.538
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1						
Dependent variable: Average annual growth in GDP per capita 2000-2017						

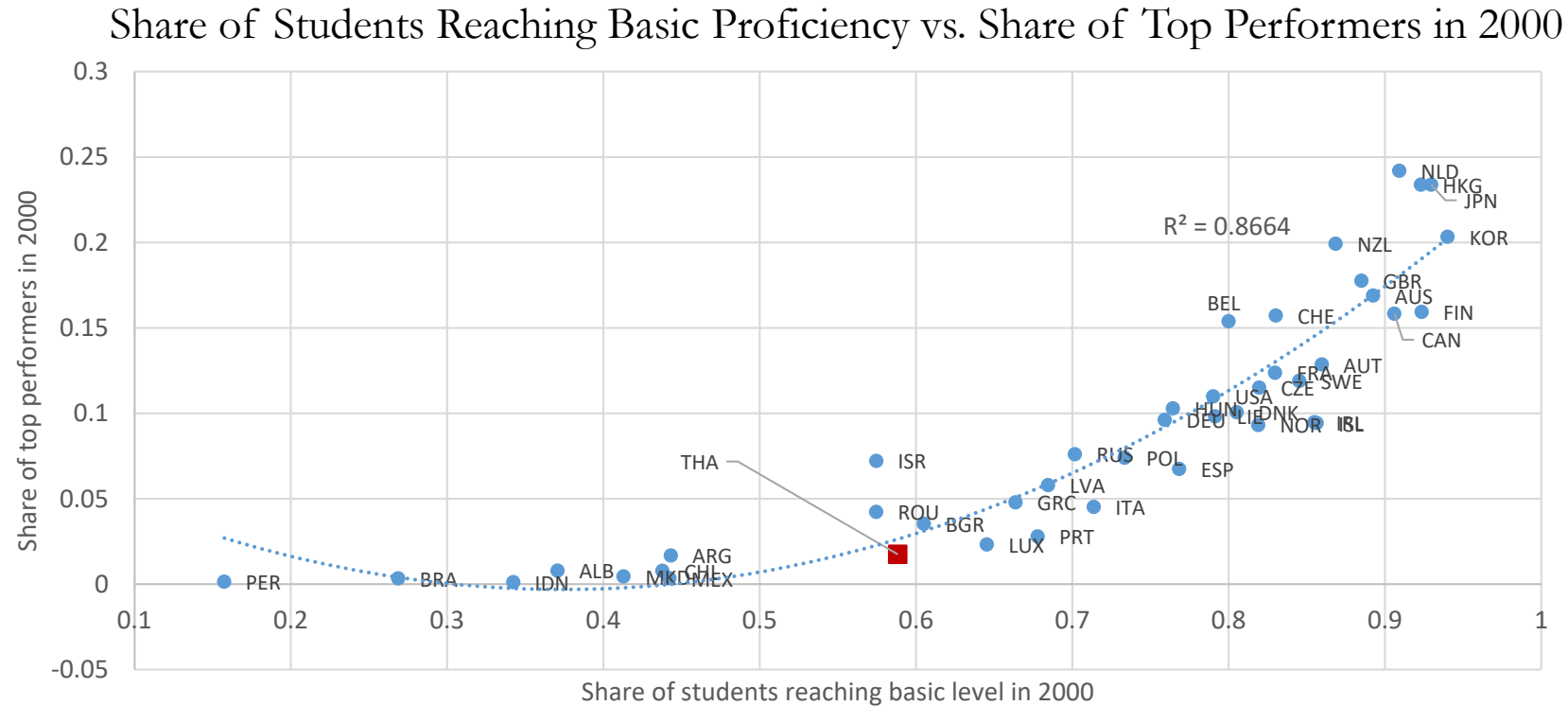
- Traditional growth regression assumes that regardless of the education system, a year of schooling delivers the same increase in knowledge and skills and that formal schooling is the only source of skill accumulation
- International student assessment results are much better at explaining differences in long-run growth rates

PISA results also allow an assessment of the effects of skill distribution on GDP per capita growth rate

	(1)	(2)	(3)	(4)	(5)
Share of students reaching basic level	4.728***				
	(1.067)				
Share of top-performing students		6.231***			
		(2.232)			
Cognitive skills 2000 x Low income			1.407***		
			(0.410)		
Cognitive skills 2000 x High income			1.260***		
			(0.377)		
Share of basic level x Low income				5.452***	
				(1.254)	
Share of basic level x High income				4.419***	
				(1.154)	
Share of top performers x Low income					25.681***
					(7.155)
Share of top performers x High income					5.269**
					(2.115)
Log GDP per capita 2000	-1.295***	-0.994***	-0.910***	-1.109***	-0.890***
	(0.219)	(0.252)	(0.245)	(0.218)	(0.244)
Trade openness	0.406**	0.490**	0.458**	0.444**	0.544***
	(0.174)	(0.196)	(0.177)	(0.169)	(0.178)
Number of observations	57	57	57	57	57
R-squared	0.607	0.491	0.548	0.621	0.579
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1					
Dependent variable: Average annual growth in GDP per capita 2000-2017					

Greater relative importance of the highly skilled

Should countries then focus more on nurturing only the high performers?



- Achieving basic literacy for all may well be a precondition for identifying the future high-performing engineers and scientists
- Competition among a large pool of students reaching basic skills may be an efficient way to obtain a greater share of high-performers

▶ LOOKING AHEAD: THE HUMAN CAPITAL INDEX

- *“How much human capital will a child born today acquire by the end of secondary school, given the risks to poor health and poor education that prevail in the country where she was born?”*
- Three ingredients reflect building blocks of the *next generation’s* human capital:



SURVIVAL: Will children born today survive to school age?



SCHOOL – How much school will they complete and how much will they learn?



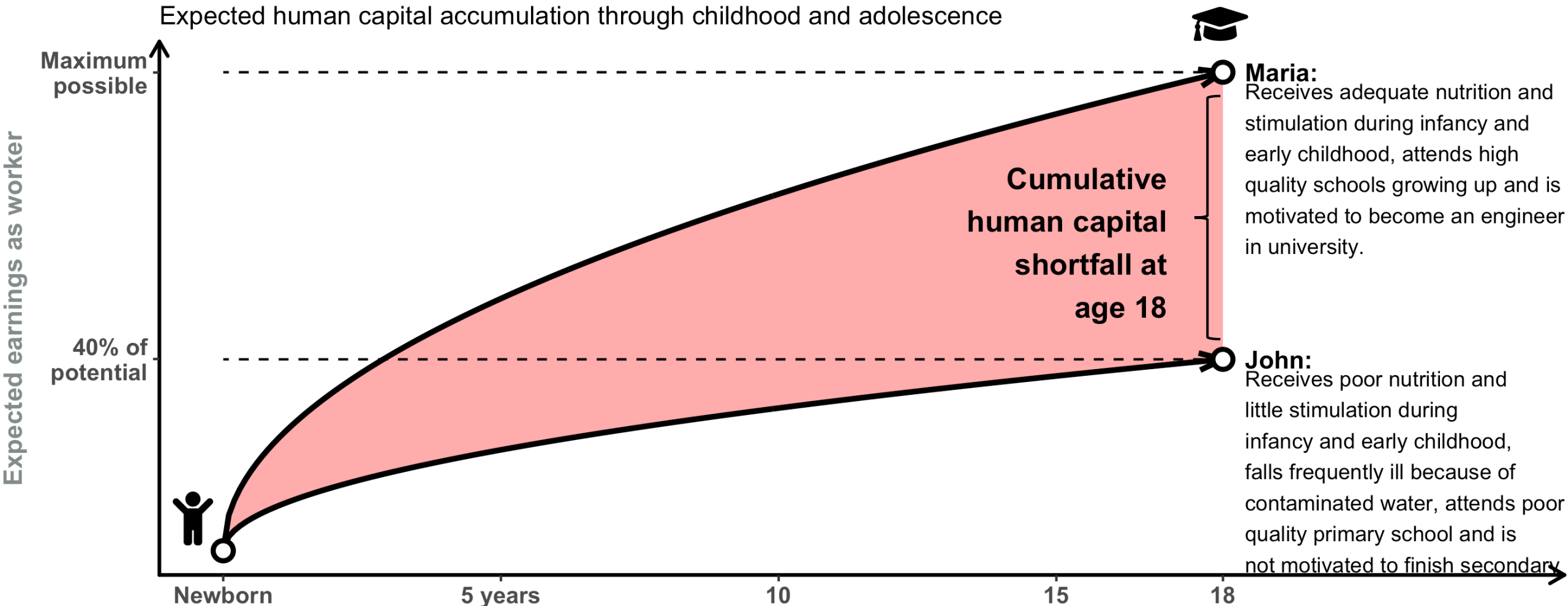
HEALTH – Will they leave school in good health, ready for further learning and/or work?

The Human Capital Index

Illustrating the concept

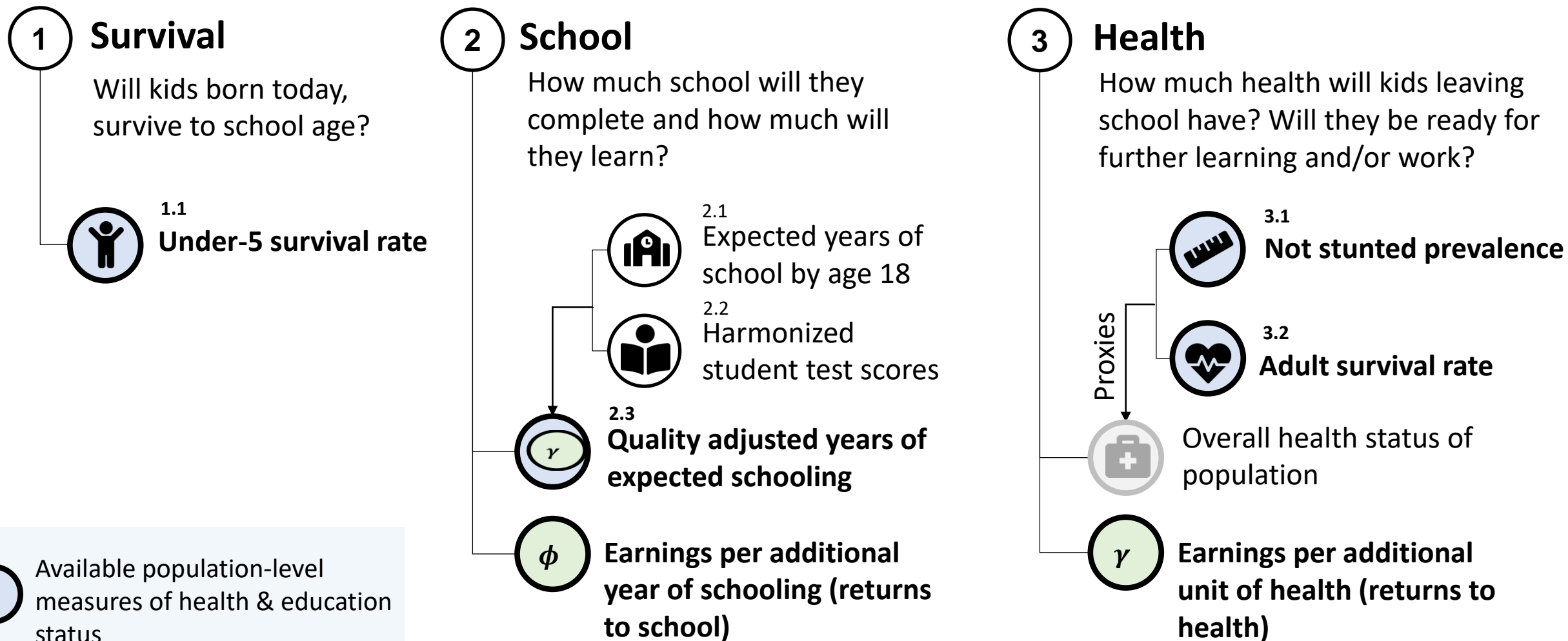
Now imagine two newborns, Maria and John, who are exposed to different risks and access to health and education growing up. How will their productive potential compare at 18 years of age?


Expected human capital accumulation through childhood and adolescence



The Human Capital Index

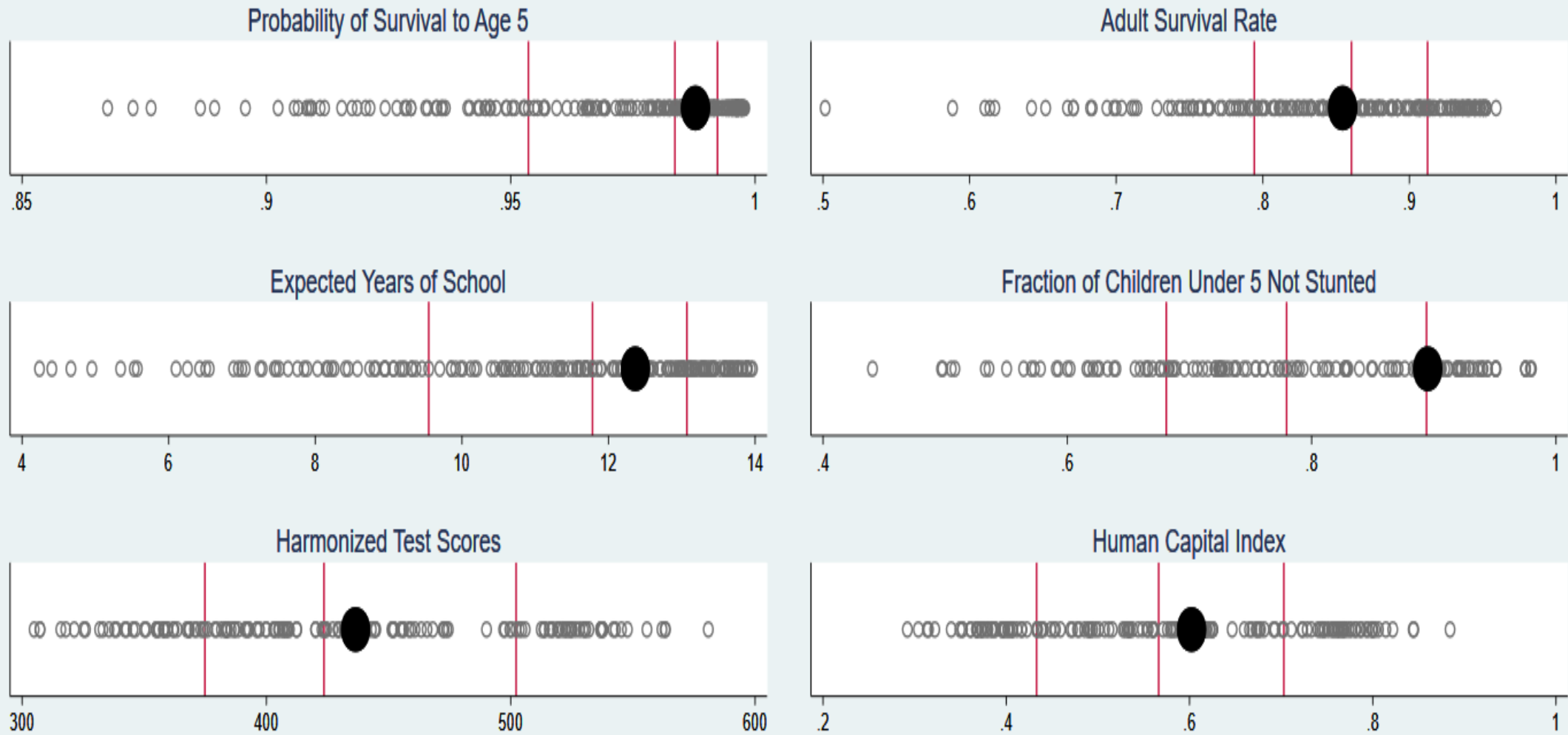
Components



 Available population-level measures of health & education status

 Productivity parameters

Human Capital Index and Components: Thailand

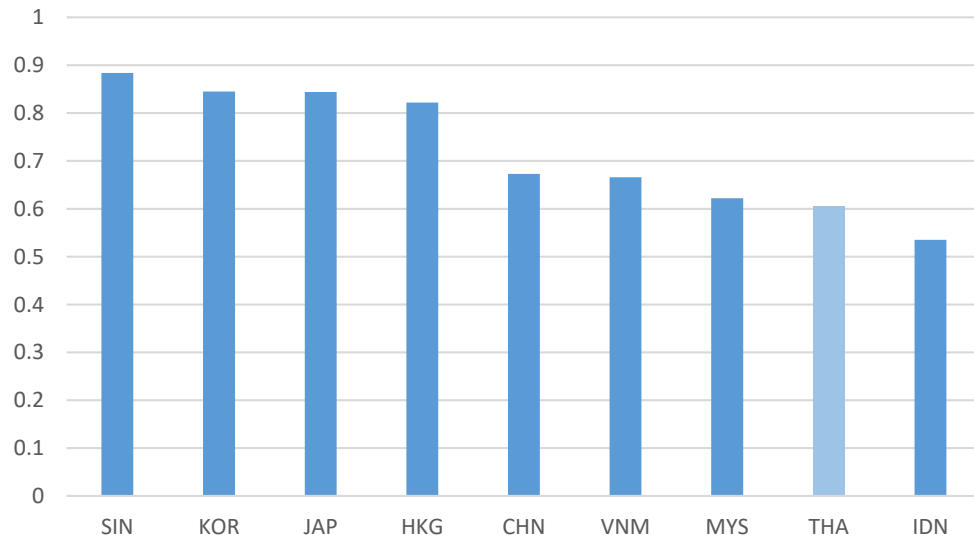


Note: Vertical lines indicate quartiles of each variable. Data are preliminary and subject to revision (as of September 14, 2018).

Have we reached our potential?

- A child born today in Thailand can expect to be only 60% as productive as a future worker as she would be if she enjoyed complete education and full health
- Improving the quality of education is the principal margin for improving human capital in Thailand

Human Capital Index (HCI)



Expected and Learning-Adjusted Years of Schooling

