Nordic-Baltic PIAAC Conference

Parity of esteem?

A job-task lens on the labour market fortunes of vocational graduates relative to academic graduates across two PIAAC cycles

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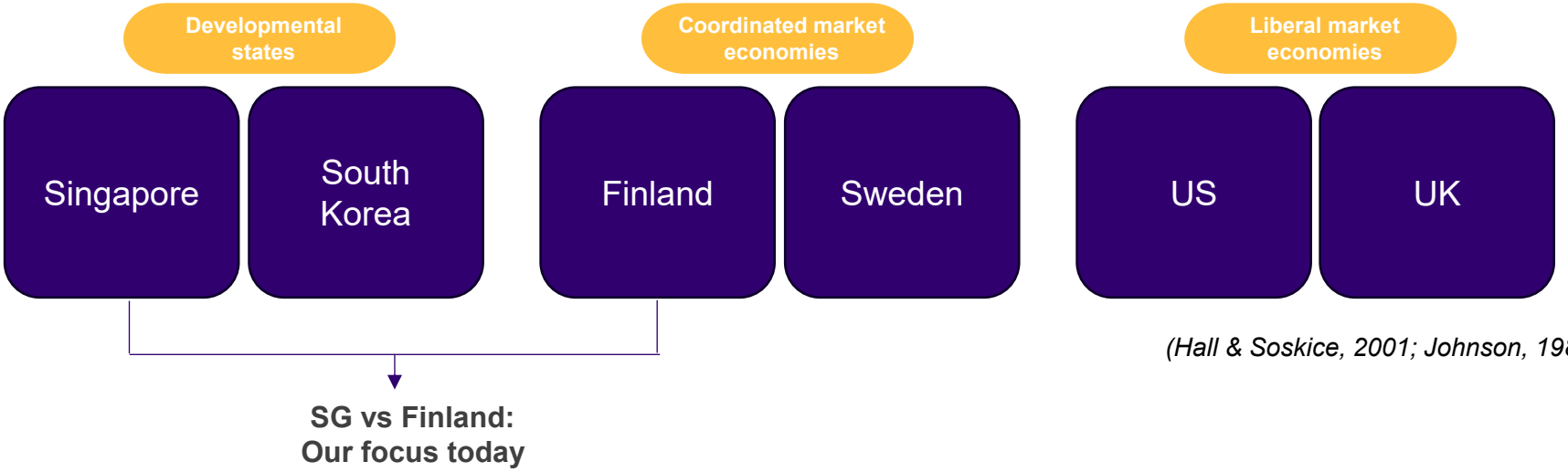
Overview

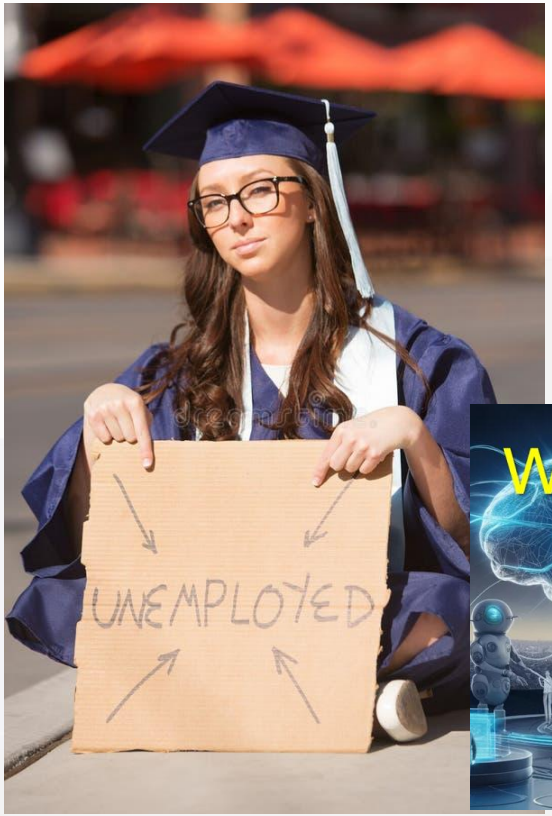
Context

Objective An ongoing 6-country political economy study of patterns of vocational vs academic outcomes using PIAAC data, analysed across and within a country's specific context



(Hall & Soskice, 2001; Johnson, 1982)

Wait! Is a focus on the labour market fortunes of vocational graduates even relevant today?



- **Yes.** Social inclusion continues to matter.
- **Yes.** Every economy needs both academic and vocational skills.
- **Yes.** Patterns may highlight underlying structural changes in the economy that underpin new forms of social inequality.

THE STRAITS TIMES

Why more degree, diploma grads are entering Singapore's plumbing and construction sectors

These blue-collar jobs are less vulnerable to disruptions and offer salaries that stack up against early-level office roles, say link bros trade associations.

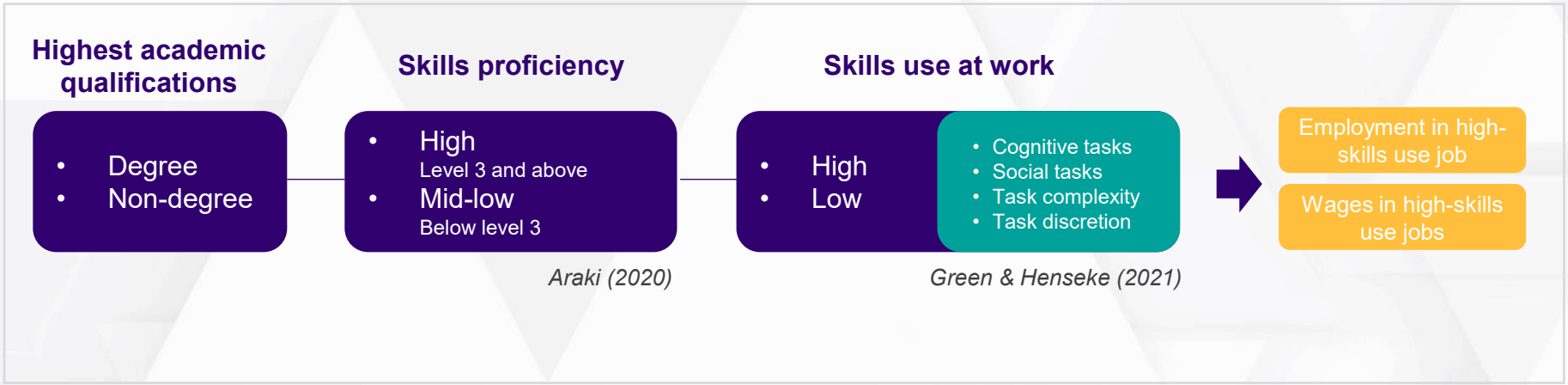
Conceptual frame

Why PIAAC data is valuable for studying labour market fortunes of vocational and academic graduates

SKILLS PROFICIENCY | SKILLS USE AT WORK

TWO-STEP ANALYSIS

- Comparing **skills proficiency** of vocational and academic graduates, in relation to their **employment** and **wages** in **high-skills use jobs** between two PIAAC cycles **–** 2014/15 and 2022/23 *(Araki 2020, Green & Henseke, 2021)*



How do skills proficiency grow in relation to qualifications?

All countries grew in proportion of degree holders. But not all degree holders have high skills proficiency. Only Finland avoided credential decoupling. Singapore successfully grew the skills proficiency of non-degree holders.

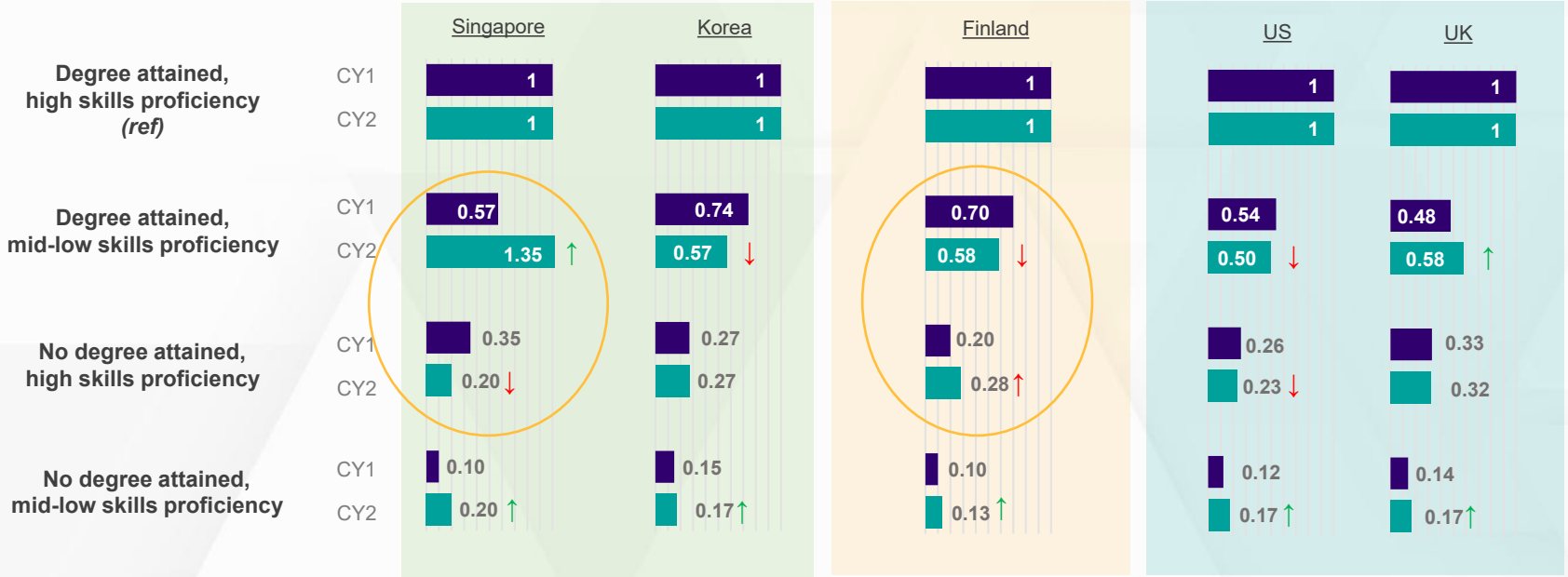
		Singapore	South Korea	Finland	US	UK
Degree attained, high skills proficiency *(ref)*	CY1	25%	17%	22%	22%	18%
	CY2	30% ↑	20% ↑	35% ↑	25% ↑	28% ↑
Degree attained, mid-low skills proficiency	CY1	7%	7%	4%	10%	9%
	CY2	10% ↑	20% ↑	4%	13% ↑	14% ↑
No degree attained, high skills proficiency	CY1	15%	19%	34%	16%	23%
	CY2	21% ↑	10% ↓	35%	13%	19% ↓
No degree attained, mid-low skills proficiency	CY1	53%	57%	39%	52%	50%
	CY2	39% ↓	50% ↓	27% ↓	49%	39% ↓

Note: For this analysis, sample is restricted to individuals aged 25-65 years old. Following Araki (2022), we divide the sample into four qualification-skill proficiency combinations, based on whether the individual has attained a degree qualification; and whether the individual attained high skills proficiency (levels 3 & above). Results are robust to alternative qualification-skill proficiency cut-offs.

Do non-degree holders sustain their access to high skills use jobs?

Yes in Finland. No, in Singapore.

Likelihood of performing high-skills use jobs[1]



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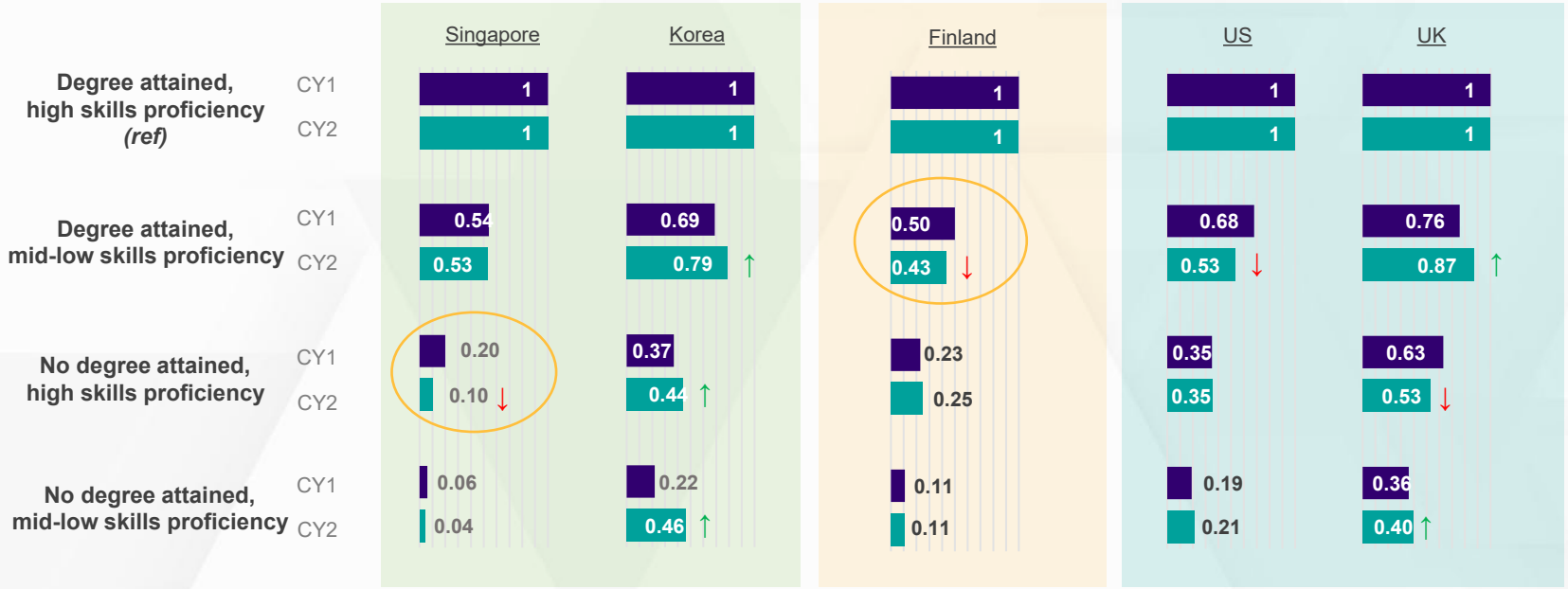
[1] Results of logistic regression of job task requirements (skills use at work) on different qualification-skill proficiency combinations. Models include controls for gender, age, immigration status, parents' education, and work experience.

Do non-degree holders sustain their wages when they access high skills use jobs?

Take the results with caution as we are using median wages.

Likelihood of earning above median wage[1]

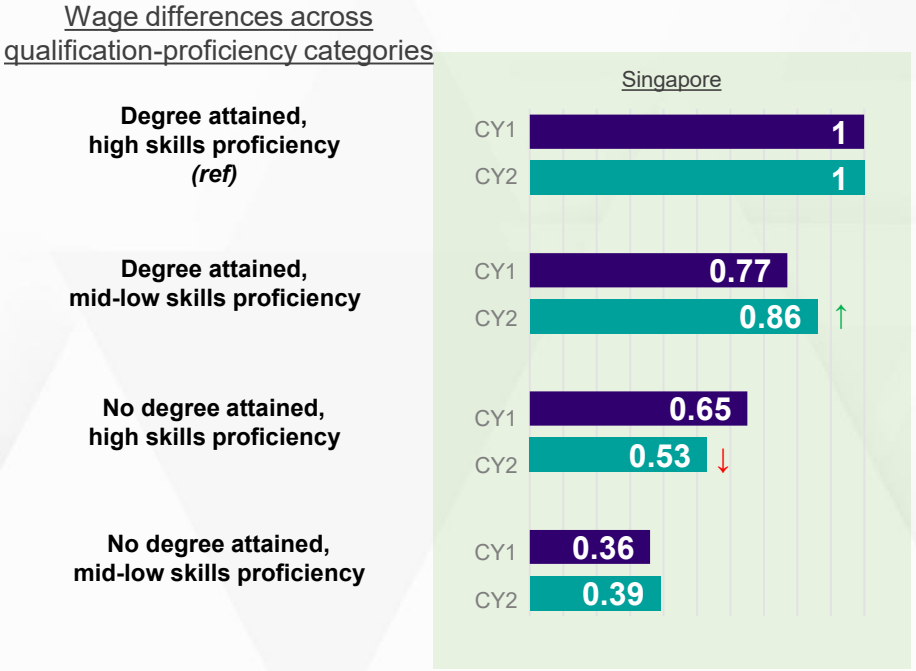


Note: For this analysis, sample is restricted to individuals aged 25-65 years old. Following Araki (2022), we divide the sample into four qualification-skill proficiency combinations, based on whether the individual has attained a degree qualification; and whether the individual attained high skills proficiency (levels 3 & above). Results are robust to alternative qualification-skill proficiency cut-offs.

[1] Results of logistic regressions of wage (earning higher than median wage) on different qualification-skill proficiency combinations. Models include controls for gender, age, immigration status, parents' education, and work experience.

Do non-degree holders sustain their wages when they access high skills use jobs?

Not in Singapore. Their wages declined, but degree holders with mid-low proficiency saw increases in wages.



Note: For this analysis, sample is restricted to individuals aged 25-65 years old. Following Araki (2022), we divide the sample into four qualification-skill proficiency combinations, based on whether the individual has attained a degree qualification; and whether the individual attained high skills proficiency (levels 3 & above). Results are robust to alternative qualification-skill proficiency cut-offs. Results of OLS regressions of log hourly wages (including bonuses) on different qualification-skill proficiency combinations. Models include controls for gender, age, immigration status, parents' education, and work experience. The wage distribution is trimmed to eliminate the 1st and 99th percentiles.

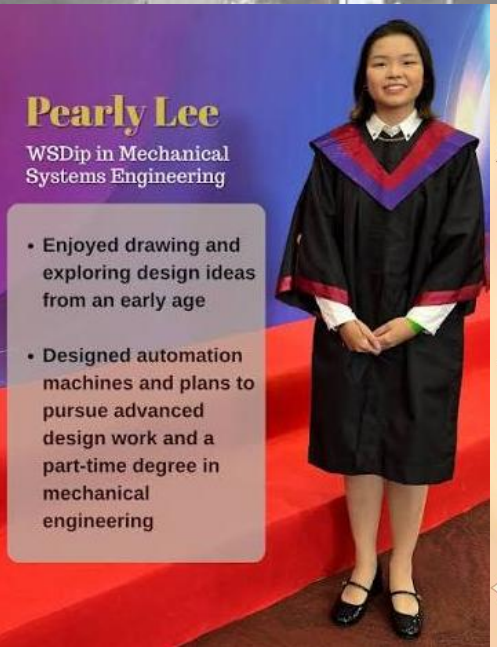
Summarising the results for Singapore vs Finland

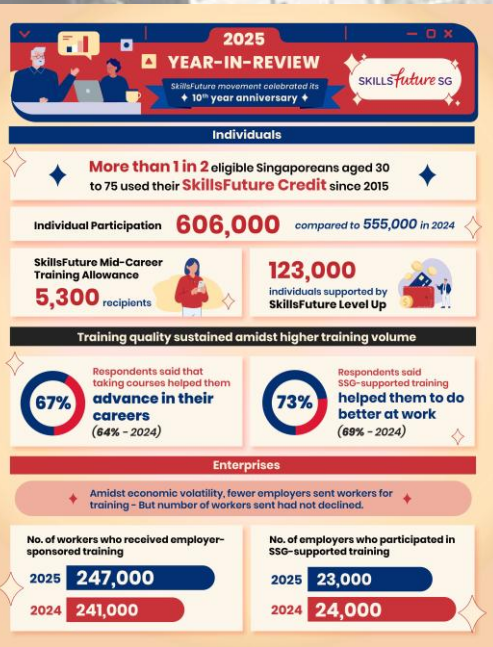
	Singapore	Finland
Qualification-proficiency	☑ Grew in proportion of degree holders with high skills proficiency ☒ Grew in proportion of degree holders with mid-low skills proficiency ☒ Grew in proportion of non-degree holders with high skills proficiency ☑ Decrease in proportion of non degree holders with mid-low skills proficiency	☑ Grew in proportion of degree holders with high skills proficiency ☑ Decrease in proportion of non degree holders with mid-low skills proficiency
Employment in high skills use jobs	☒ Degree holders with mid-low skills proficiency increase their likelihood to be employed in high skills use jobs ☒ Non-degree holders with high skills proficiency decrease their likelihood to be employed in high skills use jobs	☑ Degree holders with mid-low skills proficiency decrease their likelihood to be employed in high skills use jobs ☑ Non-degree holders with high skills proficiency increase their likelihood to be employed in high skills use jobs
Wages in high skills use jobs	☒ Degree holders with mid-low skills proficiency enjoy wage increases ☒ Non degree holders with high skills proficiency see their wages decline	-

But why? A political economy explanation…

2015

SkillsFuture Movement



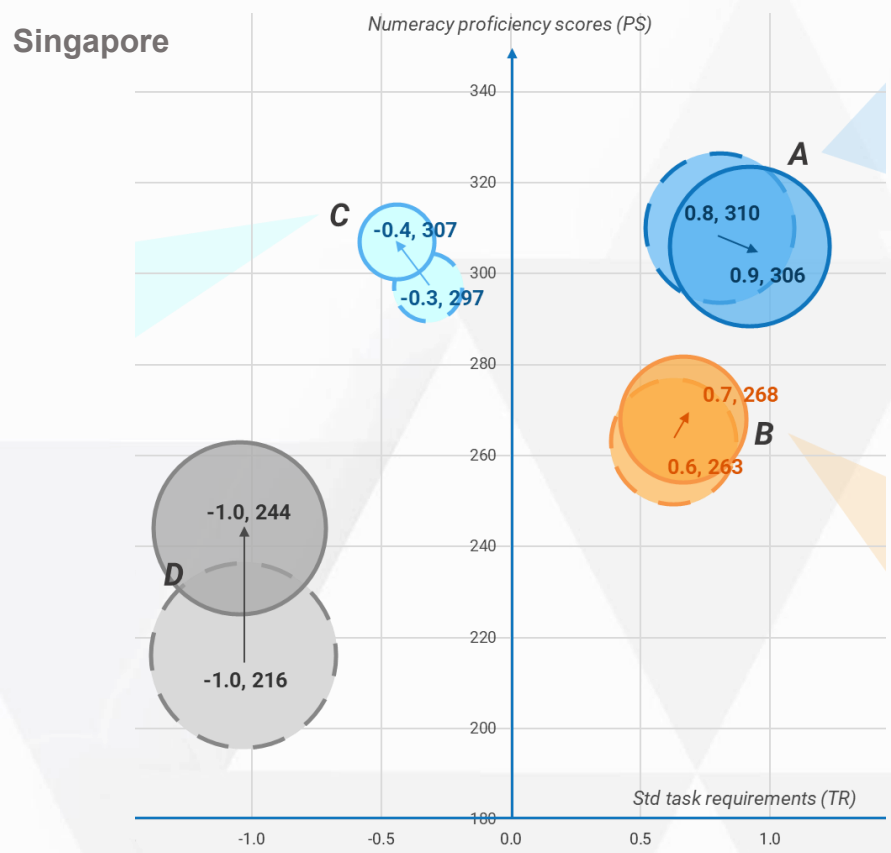


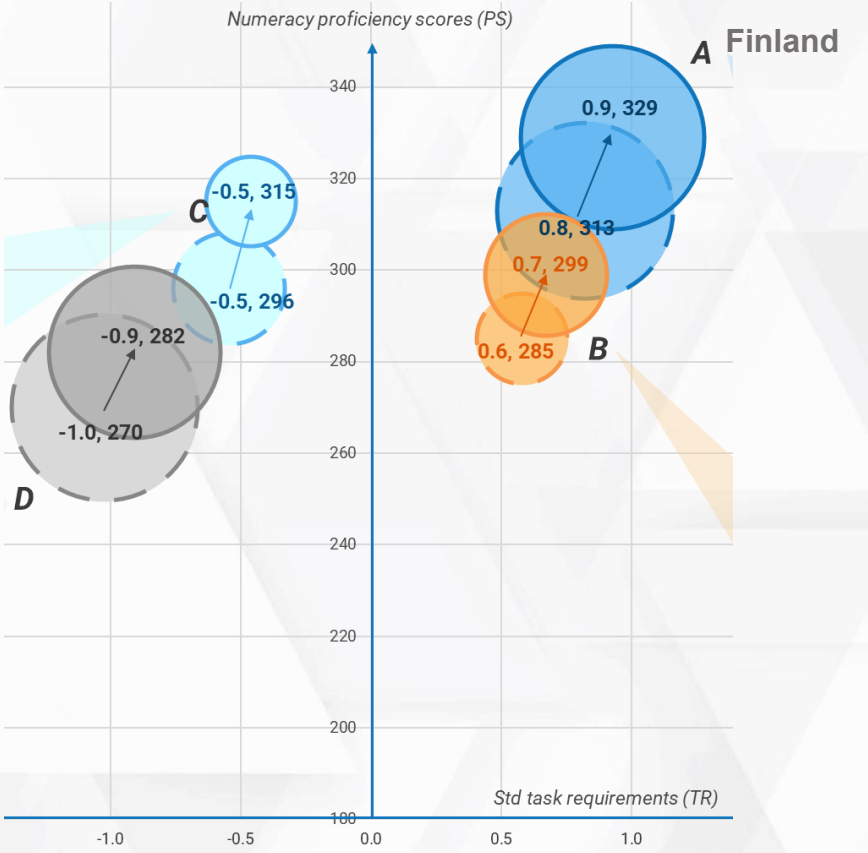
2015

"Since Singapore's labour force cannot keep growing indefinitely, continued economic growth would have to depend on raising productivity. In this phase, Singapore sought to elevate itself into a global city." *(Singapore Prime Minister's Office, 2015)*

How jobs grew in Singapore and Finland between PIAAC cycles

A Degree jobs, high skills use
B Non-degree jobs, high skills use
C Degree jobs, low skills use
D Non-degree jobs, high skills use





CONCLUDING REMARKS

- Prelim results only, more investigations underway.
- It is important to look at the underlying structure of the economy to ensure that quality jobs are created and labour markets allocate efficiently.
- Singapore grew in ways that was not socially-inclusive driven by a K-economy, and a labour market that did not allocate efficiently.
- Finland enjoyed strong growth in job-tasks including among its weaker firms, and its labour market allocates more efficiently.

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