

Future of Work • Future of Learning

3 - 4 November 2016



Job Quality in Singapore

Simon Freebody, CSPPR

Organised by: **SKILLS**future SG



What is Job Quality and Who Cares?

- Definition: *“job quality refers to the characteristics of the job and the work environment that make a difference in the employees’ satisfaction with the job.”*
- Who cares:
 - employee satisfaction: *“Among those who are mostly or completely satisfied with their job, seven out of ten also say they are mostly or completely satisfied with their lives.” - Green(2009)*
 - employee performance: *“...employers may not always be aware of research that confirms that there are strong links between a satisfied workforce and good performance.” - Green(2009)*

How to Measure Job Quality?



- Previous major studies include:
 - “Laeken indicators” (European Commission, 2003)
 - OECD framework of Job Quality (Cazes et.al., 2015)
 - Leschke JQI (Leschke et. al., 2012)
- We base analysis here on the methodology of Green (2009).
- Green’s framework is modern, simple and amenable to analysis with the use of PIAAC data.
- According to Green there are five major components of Job Quality: **Pay, Skills, Autonomy, Effort, Security**

Cazes, S., A. Hijzen and A. Saint-Martin (2015), OECD Social, Employment and Migration Working Papers, No. 174

European Commission (2003), Improving quality in work: a review of recent progress, Luxembourg, COM (2003) 728.

Green, F. (2009). *Praxis: job quality in Britain*. UK Commission for Employment and Skills (UKCES).

Leschke, J., Watt, A., & Finn, M. (2008). Putting a number on job quality. *Constructing a European Job Quality Index. ETUI-REHS Working Paper 2008.03.*

How to Measure Job Quality?

Green's dimensions	PIAAC JQI Index items
Pay	Level of hourly pay
	Equality of pay
	Fairness of pay
Skills	Level of skills used
	Variety of skills used
Autonomy	Subjective level of discretion
Effort	Avg. working hours per week
Security	Permanent vs. fixed contract

The Survey of Adult Skills (PIAAC)

- Standardised assessment of literacy, numeracy and problem solving skills across 33 OECD and OECD partner countries including Singapore
- Assessment included a sizable background questionnaire, also standardised, covering numerous variables about the individual and their job
- Samples are a minimum of 5,000 individuals from each country and are representative of the population aged 16 to 65
- For further information about PIAAC visit <http://www.oecd.org/skills/piaac/>

Level of pay



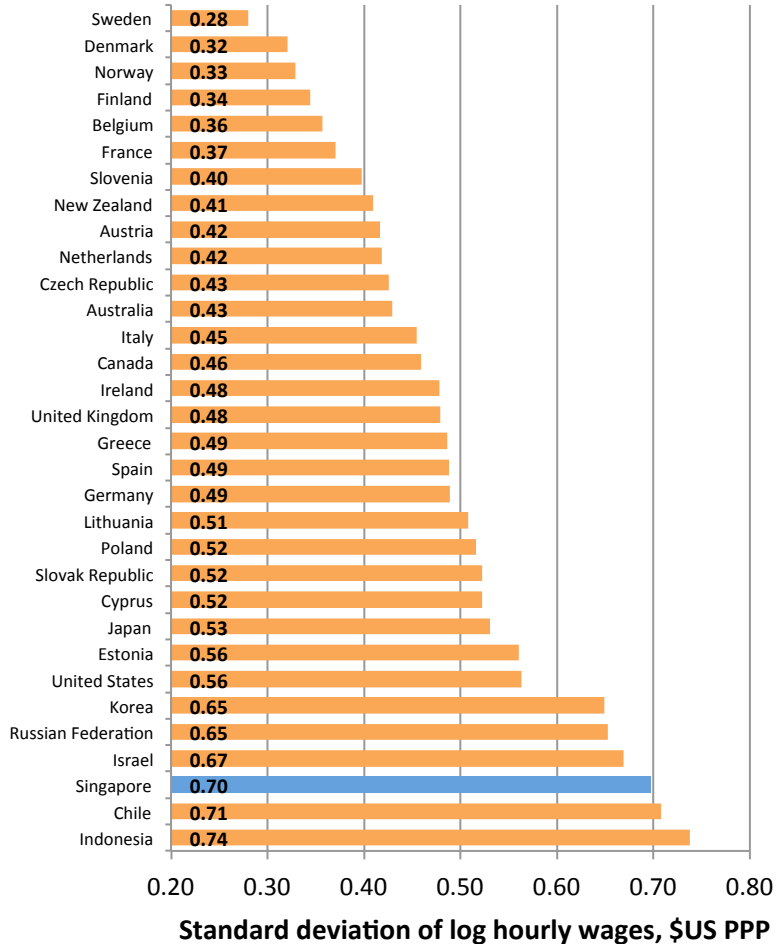
We have used median hourly wage including bonuses in \$US PPP as our indicator of level of pay.

The level of pay is considered one of the central elements of Job Quality.

Despite its obvious importance, pay is often not cited by employees as the most important factor.

- *Singapore is ranked above average in Median pay among full-time employees.*
- *Norway and Denmark have the highest median pay*
- *Indonesia and Russia have the lowest*

Equality of pay

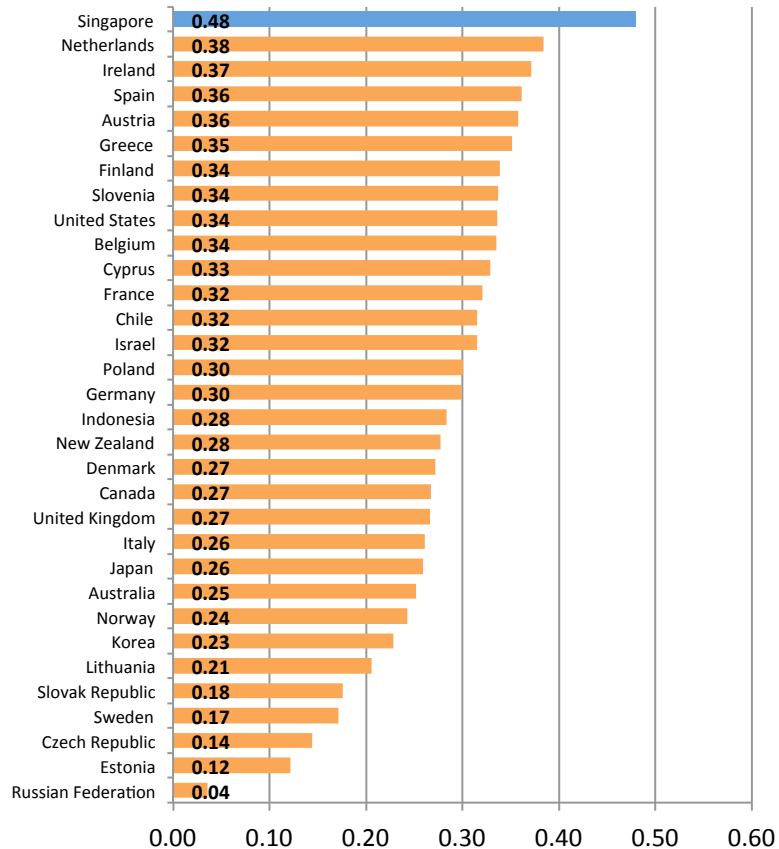


We have used the standard deviation of hourly wage including bonuses in \$US PPP as our indicator of equality of pay.

Equality of pay can be considered important as it is likely to impact the perceived fairness of the system as a whole.

- *Singapore is ranked poorly in equality of pay.*
- *The Scandinavian countries have the lowest variance*
- *Indonesia and Chile have the highest variance.*

Fairness of pay



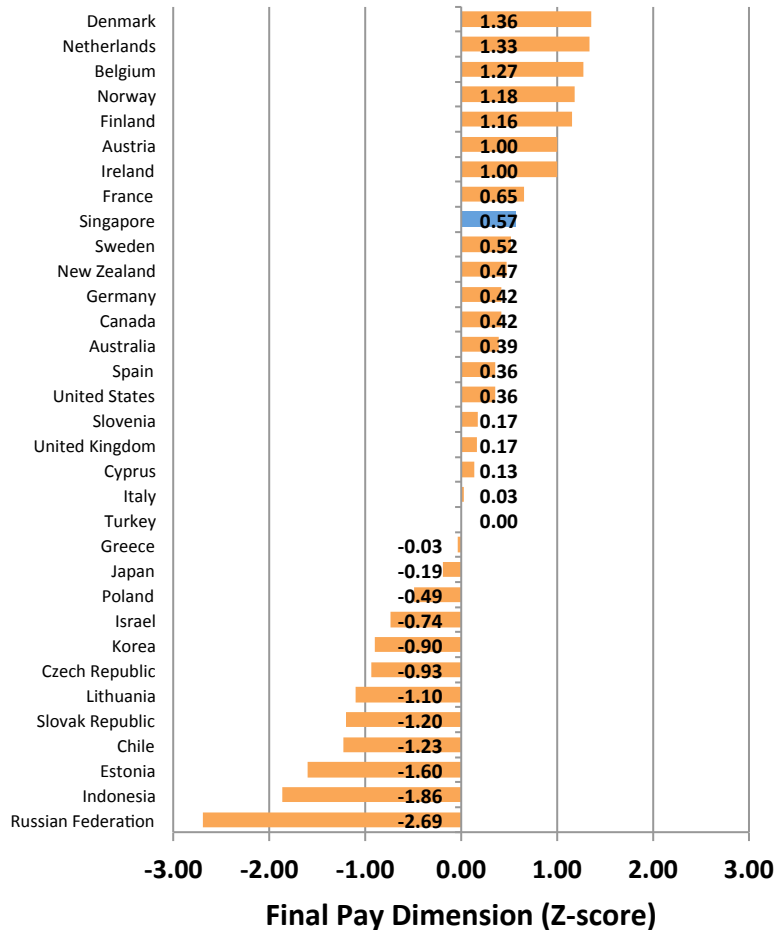
Variance in wage accounted for by education and experience

Fairness of pay employs the percentage of variance in pay accounted for by education and experience

The fairness of pay measure takes into account worker compare their pay to peers with similar education and experience.

- *Singapore stands out as having a very high level of fairness using this measure*
- *The least fair countries using this measure are Russia and Estonia*

Pay dimension



By standardising the individual pay items and combining into a single standardised score we can get a sense of where Singapore sits in terms of the overall quality of pay amongst its workers' jobs.

Skills

Large series of specific skills use questions asked in PIAAC. All are based on the frequency of skills use, eg:

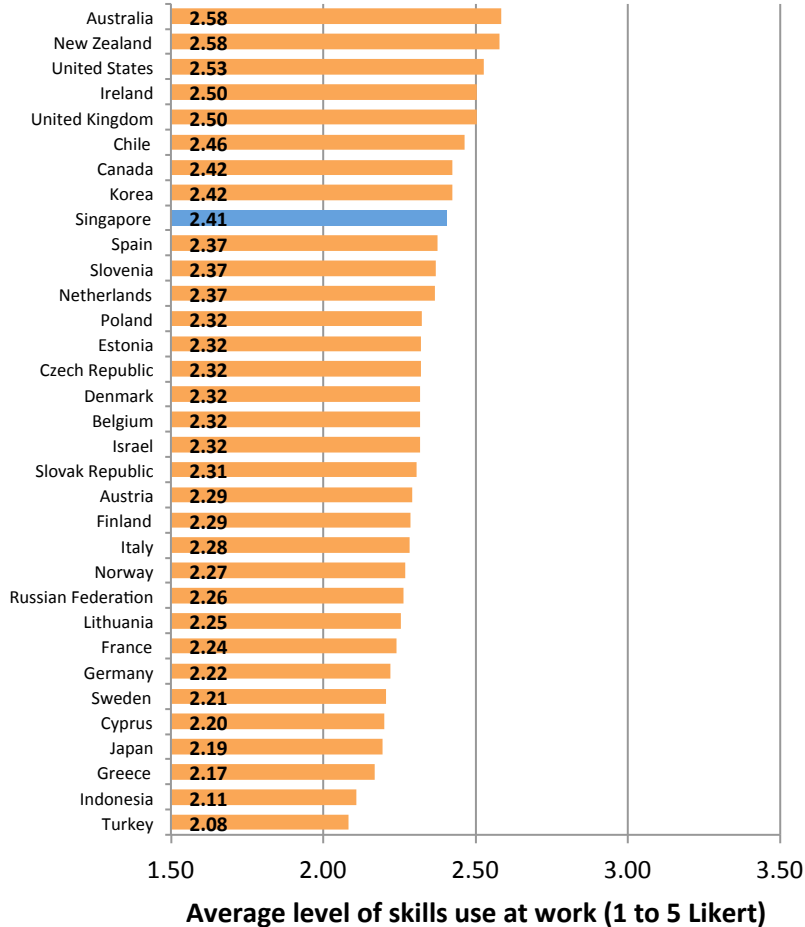
“How often does our job involve making speeches or giving presentations in front of five or more people?”

1. Never
2. Less than once a month
3. Less than once a week but at least once a month
4. At least once a week but not every day
5. Every day”

The skills use questions can be grouped into six different summary variables:

1. Numeracy
2. Reading
3. Writing
4. Influencing
5. Planning
6. ICT

Level of skills



The average overall level of the six skills groups is used as a measure of skills level.

High skilled jobs are associated with higher levels of challenge, fulfillment and ownership.

- *Singapore has an above average level of skills use among its workers.*
- *Australia, New Zealand and the US have the highest levels of skills use*
- *Turkey and Indonesia have the lowest levels of skills use.*

Job autonomy

How is Job autonomy measured in PIAAC?

“To what extent can you choose or change...

- The sequence of your tasks?
 - How you do your work?
 - The speed or rate at which you work?
 - Your working hours?”
1. Not at all
 2. Very little
 3. To some extent
 4. To a high extent
 5. To a very high extent

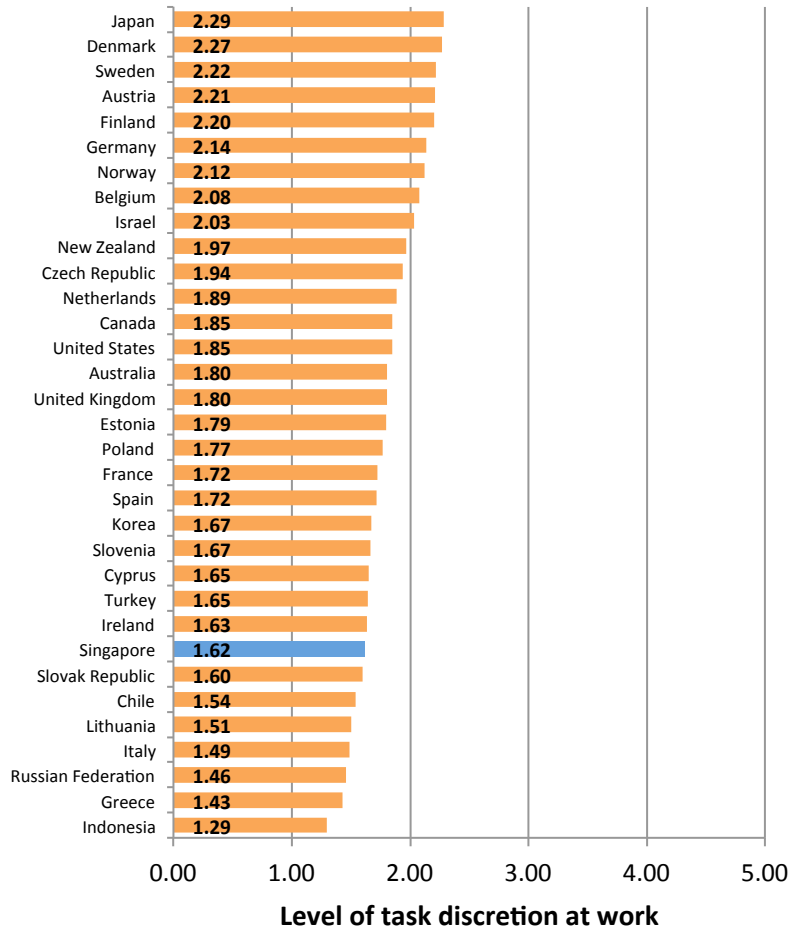
A final variable called task discretion is created as a summary of the above four variables.

Autonomy

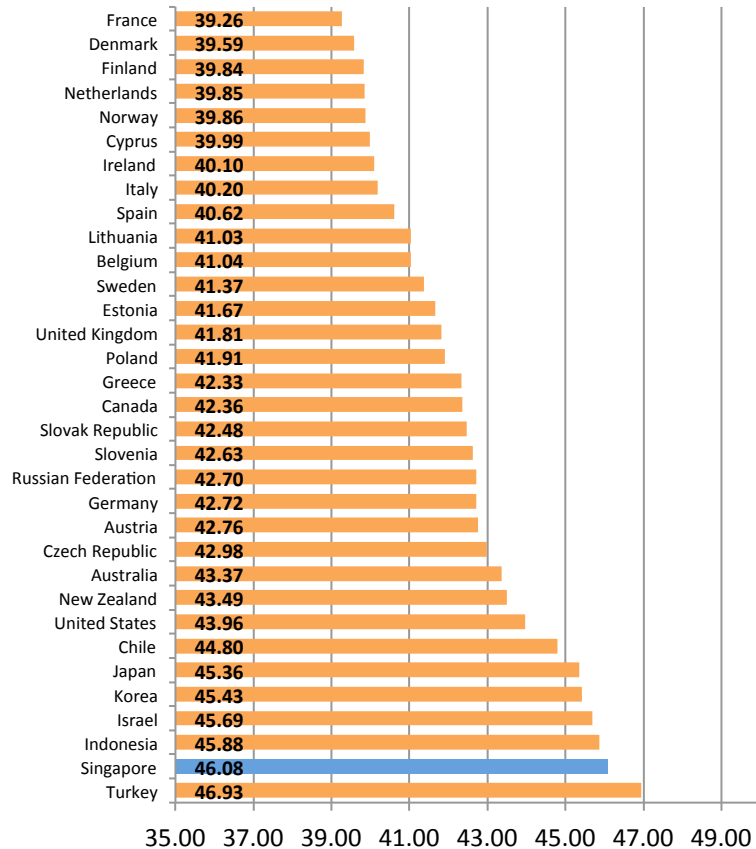
High autonomy, measured here as task discretion, provides workers with a sense of ownership

It is a longstanding feature of job quality throughout most studies.

- *Singaporean jobs offer a level of autonomy that is currently below the PIAAC average.*
- *Japan, Denmark and Sweden have jobs offering high levels of autonomy*
- *Russia, Greece and Indonesia offer jobs with very low levels.*



Effort



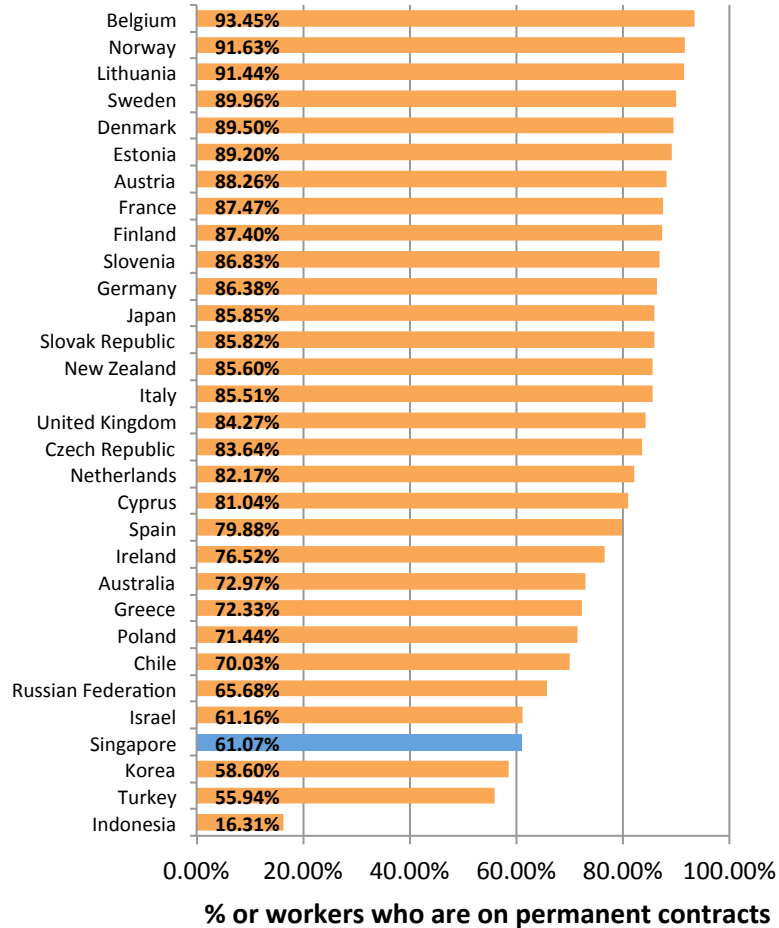
Average hours worked per week among full-time employees

Effort, or intensity, is measured here by looking at the average working hours of full-time employees.

Generally speaking, the longer the working hours the lower the quality of the job.

- *Singaporean jobs tend to have very high working hours along with Turkey and Indonesia.*
- *France, Denmark and Finland have the lowest working hours in the sample*

Security



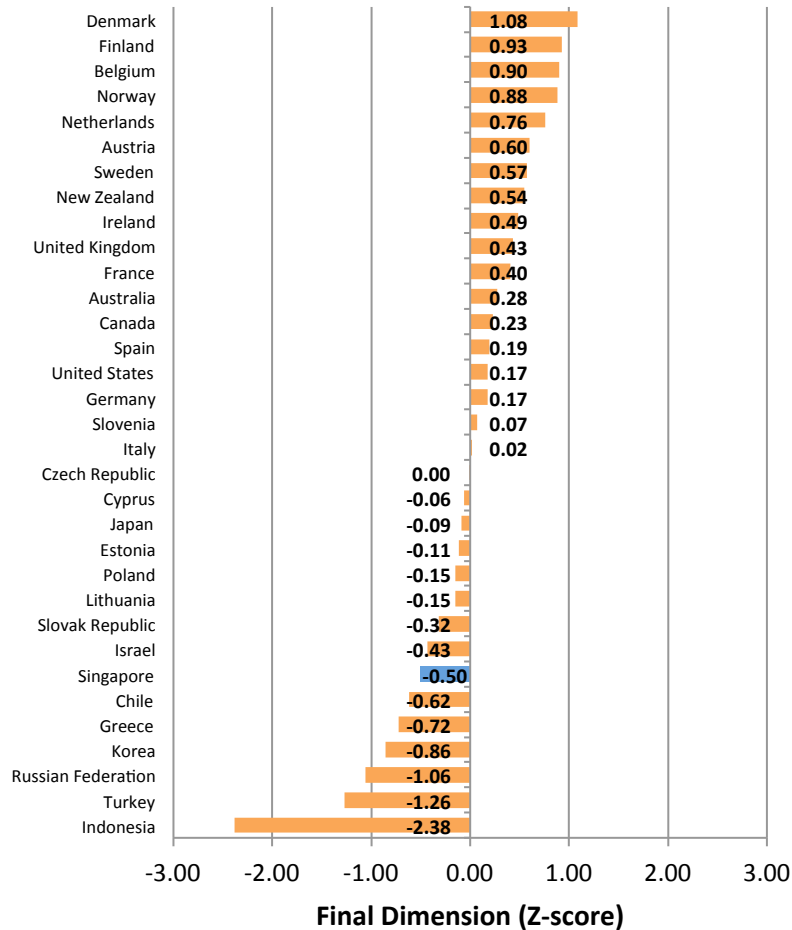
Security is one of the most important aspects of job quality.

Here we are measuring job security by looking at the percentage of the workforce that are in permanent employment.

- *Singaporean jobs tend to have a low level of security according to this measure, along with Turkey and Indonesia.*
- *Belgian, Norwegian and Lithuanian jobs have relatively high level of security*

Final index

By standardising the individual items and combining into a single standardised score we can get a sense of where Singapore sits in terms of the overall quality of jobs.



Pay	Skills	Autonomy	Effort	Security
9/33	10/33	26/33	32/33	30/33

Comparisons with auxiliary measures

Given that job quality is positioned as being strongly associated with life satisfaction and performance we would hope to see an association between overall job quality and measures of life satisfaction and performance. The scatter plots below show good examples of this

