

Workshop on

Singapore's Human Capital Challenges and the Future Economy

Monday, 20 November 2017
Ballroom 2, Level 3
Orchard Hotel



Presentation Session Skill Deficits and Training Needs in Singapore's Workforce

Associate Professor Randolph Tan

Director

Centre for Applied Research
Singapore University of Social Sciences







Skill Deficits and Training Needs in Singapore's Workforce

November 20, 2017

Randolph Tan
Centre for Applied Research
Singapore University of Social Sciences

Introduction

Overview

Key human capital challenges of the future economy

- –Sources of manpower
- -Skills
- -Training needs



Questions of interest

Skills deficits

- Where they occurred in the past?
- Where they are expected to occur In future?
- Where are the areas in which they persist?
- How do we plug the gaps?
- What are the implications for businesses and industry?



Skills deficits or manpower shortages? A recurring example

Top Ten Occupations With The Highest Number Of Vacancies Unfilled For At Least Six Months

	20	16	20	15	20	14	2013		2012		2011		2010		2009	
	Rank	Num														
All PMETs		4520		4800		6370		3960		3660		3070		2890		2020
Registered Nurse &																
Other Nursing	1	450	3	210	1	660	9	90	1	260			6	70		
Professional																
General	3	220							2	150	4	110	5	70		
Practitioner/Physician	3	220							2	130	4	110	3	70		
Enrolled/Assistant																
Nurse (Excluding	4	210	1	420	2	590	2	150	2	150			7	60	8	40
Registered Nurse)																

Source: Job Vacancies, MOM (2009 to 2016). Figures published as at September each year. Rank is derived using absolute numbers of unfilled vacancies, while Num refers to the these numbers.



Questions of interest

Training needs

- Is training available, accessible, useful?
 - Who receives training?
 - Are urgent training needs properly met?
 - Does training necessary lead to improved performance?



Training - empirical evidence

OECD's Survey of Adult Skills (PIAAC)

- Training related to educational attainment
 - In line with predictions of HC theory
 - How about LWW, especially those in SMEs?
- Employers have a significant influence on how much learning occurs at work
- High proportion of employer-funded training occurs in countries which perform well in problem-solving in PIAAC



Proportion of respondents receiving funded training

	Rank in problem- solving	Fully-funded	Partly-funded	Not funded	Number of working respondents		
DNK	6	85.73	2.82	11.45	2621		
FIN	3	81.01	1.69	17.3	1890		
SVN	23	80.94	5.06	14	1086		
NLD	4	79.84	2.36	17.79	1776		
NOR	5	78.81	4.15	17.03	2407		
BEL	13	78.55	2.39	19.06	1170		
DEU	10	76.74	4.82	18.44	1556		
NZL	1	71.56	5.44	22.99	2057		
SWE	2	71.28	3.84	24.88	1511		
CZE	14	69.18	7.69	23.13	1509		
EST	19	68.63	5.99	25.38	1903		
IRL	24	66.67	5.02	28.31	1434		
LTU	26	63.05	12.03	24.92	939		
POL	25	61.33	6	32.67	1200		
SGP	8	61.13	8.9	29.97	1842		
ISR	20	59.87	8.79	31.33	1251		
JPN	12	59.82	17.15	23.03	1003		
SVK	22	58.27	8.91	32.82	786		
CHL	27	51.59	11.81	36.61	1008		
KOR	17	39.2	14.47	46.33	1783		
TUR	29	33.61	9.48	56.91	601		
GRC	28	25.98	3.63	70.39	358		

Source: OECD (2016c), Survey of Adult Skills (PIAAC) (Database 2012, 2015),

 $www.oecd.org/site/piaac/public data and analysis. htm.\ Problem-solving\ scores\ from\ OECD\ report.$

Computations on training by author.



Training - meeting needs of workers

OECD's Survey of Adult Skills (PIAAC)

- Several factors at play, but employer support is key
- Government has a heavy role in Singapore, but cannot replace role played by employers
- But not all employers are the same
 - One-size-for-all approach not suitable





Thank You.



Workshop on

Singapore's Human Capital Challenges and the Future Economy

Monday, 20 November 2017
Ballroom 2, Level 3
Orchard Hotel

