

Should Governments of OECD Countries Worry about Graduate Underemployment?

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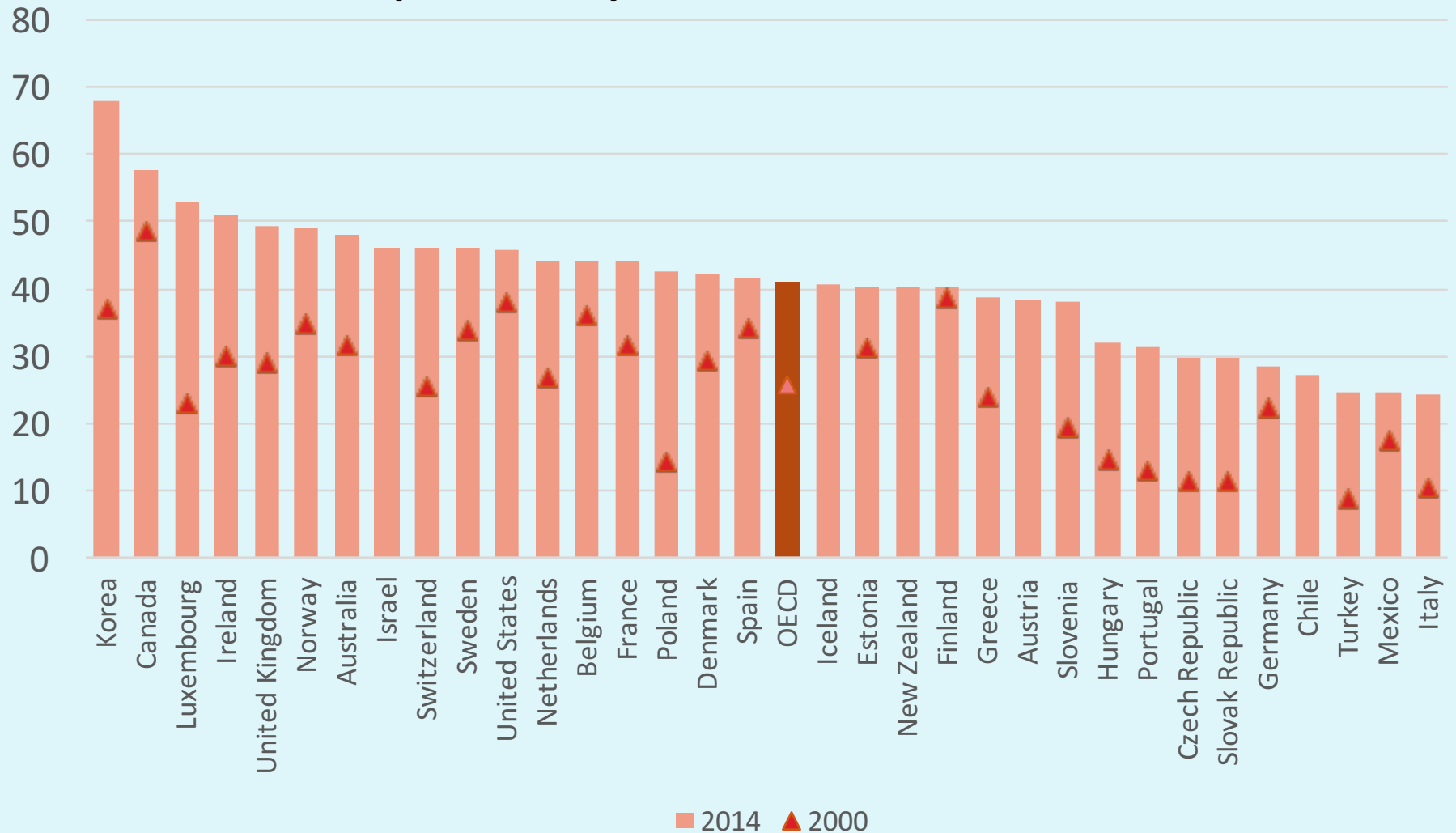
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Consequence of mass HE participation

- the labour force transformed
 - OECD tertiary achievement rising at ~1% p.a. (2000-2014) among young adults

Tertiary education of the young (25-34) labour force





+



= “underemployment”

- Is under-employment/overeducation a cause for concern?
 - Public discourse
 - Academics
 - Policy-makers

Outline

- Should underemployment be considered seriously?
- Three empirical questions surrounding underemployment today across OECD countries:
 - variable prevalence
 - personal outcomes
 - external outcomes

Perspectives on underemployment

Neoclassical
economics:
HCT (+ credentialism)



Unimportant,
illusory

Jobs competition/
assignment models
+ substantive macro shifts



Relevant






Why take underemployment seriously?

- State dependence or temporary disequilibrium
 - persistence is high (e.g. Clark et al. 2014)
- Skills heterogeneity?
 - not enough (e.g. Levels et al. 2014)
- Problematic measurement of job requirements?
 - resolved (e.g. Spitz-Oener, 2006; Green, 2012)

Is wage premium analysis more reliable?

- complementary

What's the problem with graduate underemployment?

- potential disillusion and dissatisfaction 
 - e.g. Green and Zhu (2010)
- financial risk 
 - multiple refs; e.g. McGuinness (2006) lit. review
- prevalence growing [Why?] 
 - evidence for Britain, Germany, Poland, Sweden
- and consequences may be growing 
 - Green and Zhu (2010)
- X-country prevalence variable: so maybe underemployment could be reduced 

What the underemployment discourse misses

- private non-employment related benefits
 - health(e.g. reduced mortality), intrinsic benefits
- external benefits (adding to ‘public good’), incl.:
 - cultural development, knowledge creation, reduced crime/lower incarceration costs, lower welfare costs, health benefits, enhanced social trust, increased civic engagement, democracy (long lags; conflict?) (eg. McMahon 2009)

Empirical Questions

1. Variable prevalence of graduate underemployment across countries: why?
2. Personal employment-related penalties of underemployment across countries: are they ubiquitous?
3. Even for the underemployed, are there external &/or private non-employment benefits of HE?

Data & measurement

- SAS wave 1: competences and task data; 22 country-regions
- new classification of "graduate jobs" from ISCO08, validated:
 - use task and entry-education requirement data to compute a latent graduate skills requirement index
 - average within 3-digit ISCO codes
 - split into 2 clusters using k-median clustering
- graduate underemployment: "graduate in a non-graduate job"

Underemployed graduates, observed and skills adjusted

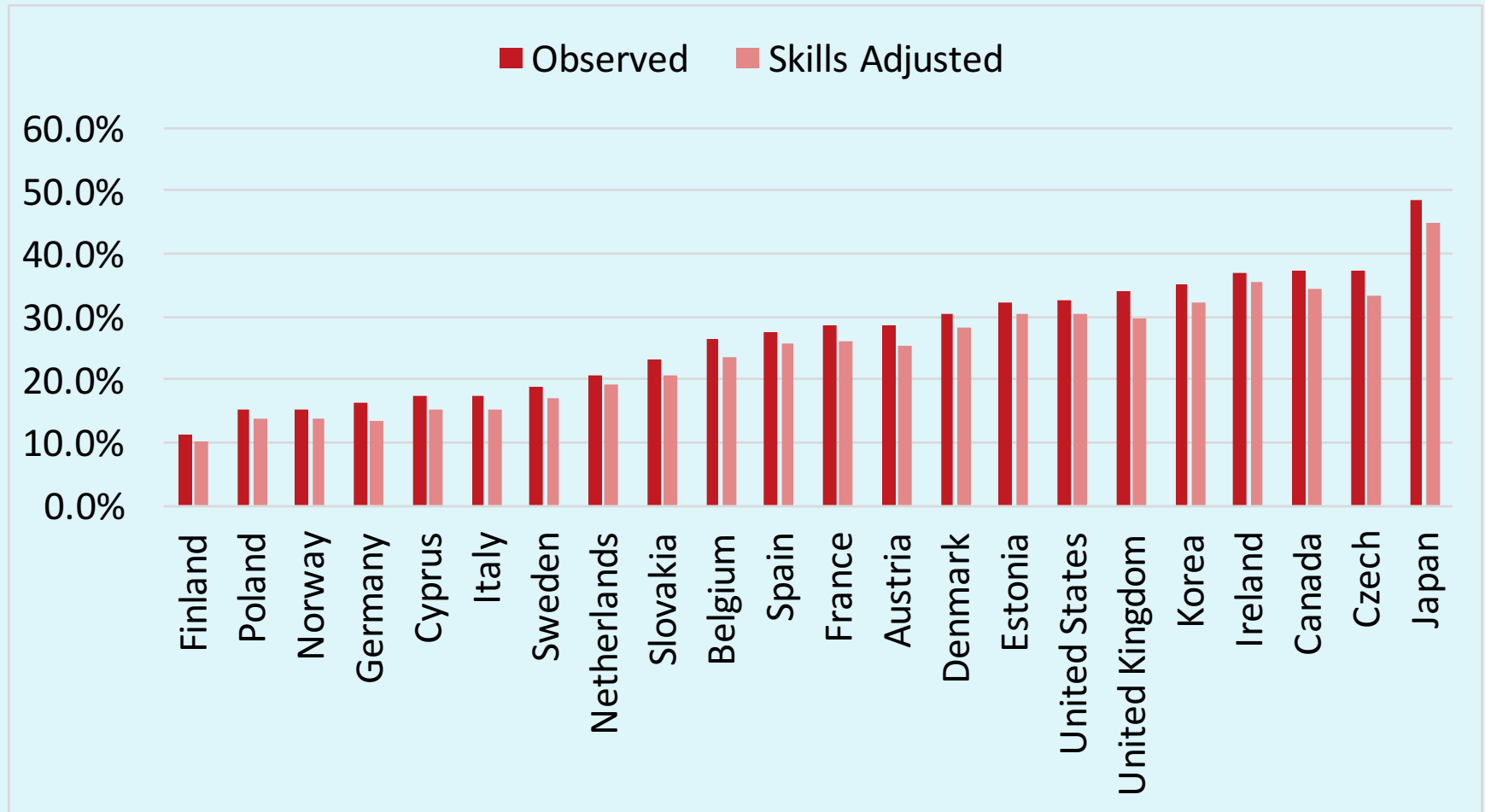


Figure 2: Underemployment and the relative demand for graduates

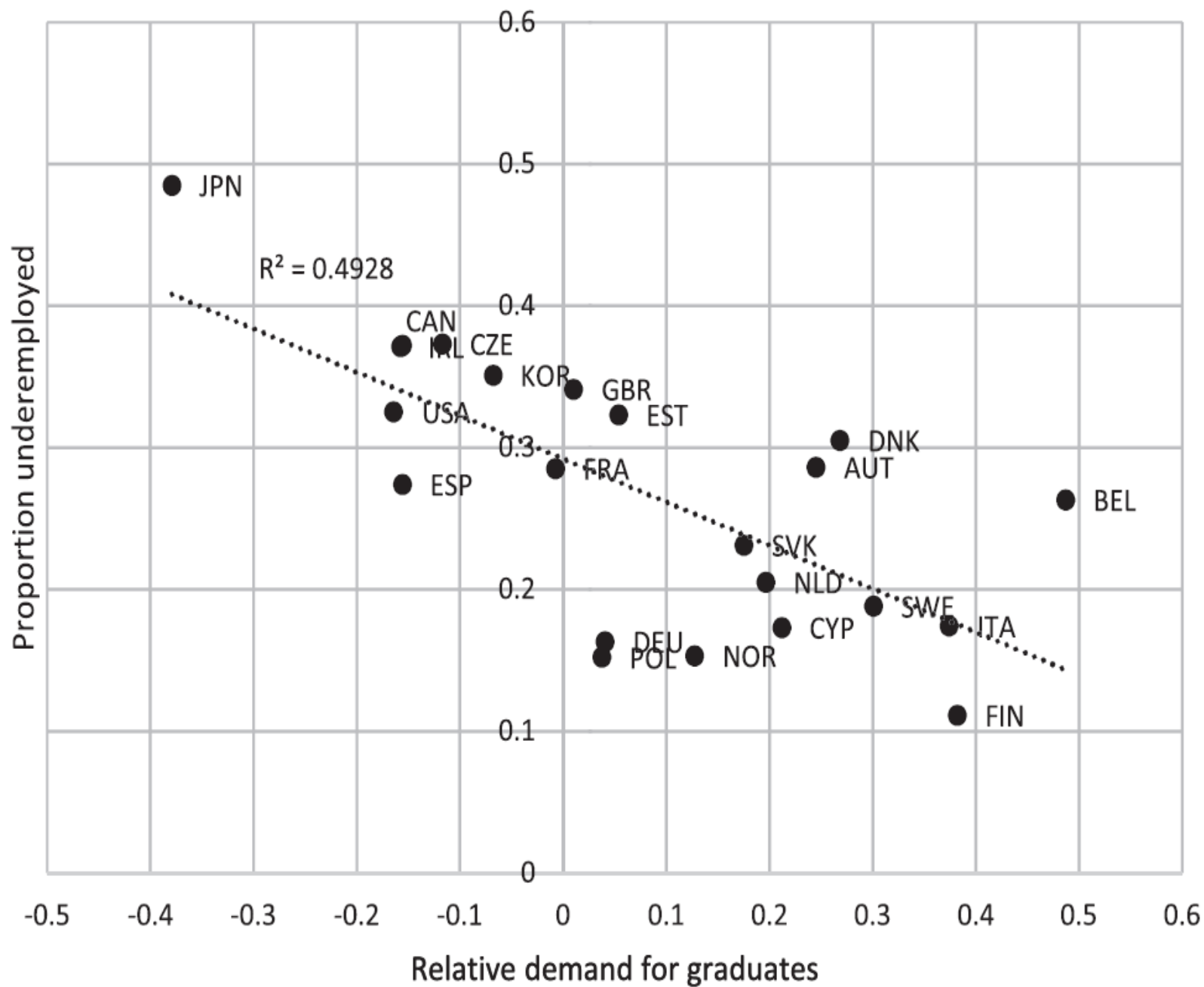


Table 2: Country differences in the propensity of graduate underemployment

	(1)	(2)	(3)	(4)
	Log (underemployed)	Log (underemployed)	Log (underemployed)	Log (underemployed)
Relative demand	-1.099** (0.305)			-0.942# (0.454)
EPL		-0.271* (0.110)		-0.147 (0.115)
Union coverage			-0.00617* (0.00247)	0.000473 (0.00339)
<i>N</i>	21	21	21	21
<i>R</i> ²	0.407	0.241	0.247	0.460
adj. <i>R</i> ²	0.375	0.201	0.207	0.365

High/low earnings and job dissatisfaction by underemployment status

		Pr (low earnings)	Pr (high earnings)	Pr (job dissatisfaction)
FIN	MG vs MiG	-0.363***	0.397***	-0.0738*
	MiG vs MnG	-0.0368	0.0468	0.0429
FRA	MG vs MiG	-0.278***	0.367***	-0.0740**
	MiG vs MnG	-0.0764**	0.124***	0.0268
DEU	MG vs MiG	-0.271***	0.372***	-0.0871#
	MiG vs MnG	0.0107	0.0253	0.0677
IRL	MG vs MiG	-0.185***	0.302***	-0.131***
	MiG vs MnG	-0.228***	0.242***	0.0435

High/low earnings and job dissatisfaction by underemployment status

		Pr (low earnings)	Pr (high earnings)	Pr (job dissatisfaction)
JPN	MG vs MiG	-0.164***	0.295***	-0.106***
	MiG vs MnG	-0.108***	0.108***	-0.00836
KOR	MG vs MiG	-0.113***	0.127***	-0.169***
	MiG vs MnG	-0.127***	0.189***	-0.0456
GBR	MG vs MnG	-0.259***	0.343***	-0.0828*
	MiG vs MnG	-0.0375	0.104**	0.0724*
USA	MG vs MnG	-0.179***	0.305***	-0.128***
	MiG vs MnG	-0.149***	0.157***	0.0385

Health and external benefits of HE, by underemployment status

		Health	Social trust	Civic participation	Political efficacy
FIN	MG vs MiG	0.353**	0.627**	0.0217	0.114**
	MiG vs MnG	0.103	0.439*	0.0989#	0.0842*
FRA	MG vs MiG	0.208**	0.471***	0.0115	0.00697
	MiG vs MnG	0.0579	0.895***	0.0985**	0.119***
DEU	MG vs MiG	0.198#	0.604**	0.0540	0.0336
	MiG vs MnG	0.146	0.529**	0.0859	0.174**
IRL	MG vs MiG	0.184#	0.375*	0.0657#	0.0834*
	MiG vs MnG	0.129	0.499***	0.0369	0.103**

Health and external benefits of HE, by underemployment status

		Health	Social trust	Civic participation	Political efficacy
JPN	MG vs MiG	-0.001	0.104	-0.00958	0.0283
	MiG vs MnG	0.120*	0.565***	0.0618*	0.161***
KOR	MG vs MiG	0.206**	0.116	0.0324	0.0344
	MiG vs MnG	0.0428	0.367***	0.126***	0.0714*
GBR	MG vs MnG	0.102	0.382**	0.0963**	0.0369
	MiG vs MnG	0.218**	0.537***	0.122***	0.153***
USA	MG vs MnG	0.206*	0.549***	0.0216	0.0477
	MiG vs MnG	0.409***	0.513***	0.210***	0.145***

		Health	Social trust	Civic participation	Political efficacy
AUT	MG vs MiG	—	0.183	-0.0300	0.0613
	MiG vs MnG	—	0.970***	0.0560	0.142**
BEL	MG vs MiG	0.00688	0.0631	0.0613	0.00567
	MiG vs MnG	0.335***	1.092***	0.0820#	0.262***
CAN	MG vs MiG	0.196***	0.403***	0.0839***	0.0206
	MiG vs MnG	0.0949*	0.488***	0.110***	0.140***
CYP	MG vs MiG	0.318**	0.380**	0.0773#	0.0239
	MiG vs MnG	-0.0406	0.0128	0.113**	0.0249
CZE	MG vs MiG	0.161	0.268	0.0976*	0.0672
	MiG vs MnG	0.307*	0.656***	0.0297	0.175**

Summary of significant estimates:

	Pay	Job Satisfaction	Health	Social Trust	Civic Participation	Political efficacy
Matched vs underemployed	22 (all)	19	12/21	15	8	6
Underemployed v Matched non-graduate	18	7	10/21	20	12	19

For the details see the paper

Summary of findings

- we should take graduate underemployment seriously
- its prevalence varies a lot, partly reflecting relative aggregate supply/demand
- personal penalties are ubiquitous, but the benefits within non-graduate jobs are also widespread
- but HE delivers external benefits *even for the underemployed*

Take-Away

“Should Governments of OECD Countries Worry about Graduate Underemployment?”

- Yes ..: problems are real
- But...: HE also has other purposes and outcomes. Social outcomes (private and external) should inform policy.

Green, F. and G. Henseke (2016) "Should governments of OECD countries worry about graduate underemployment?"
Oxford Review of Economic Policy (open access)

Green, F. Skills and Skilled Work. An Economic and Social Analysis, Oxford University Press, 2013.