

# Is Education the Key to Economic Success?

Thesis Title: Educational Expansion, Skills Diffusion, and the (De)valuation of Educational Credentials and High Skills

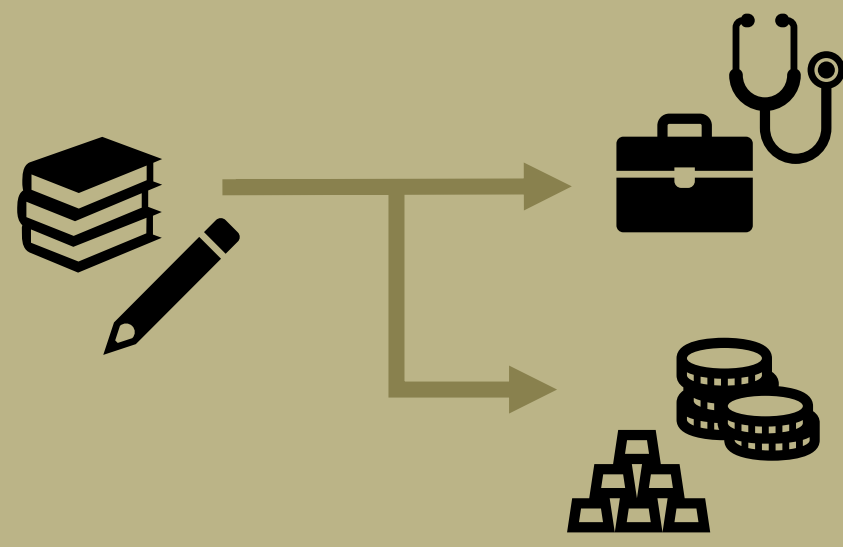


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## Conventional Wisdom

Higher levels of educational credentials and skills lead to preferable occupational and monetary rewards.



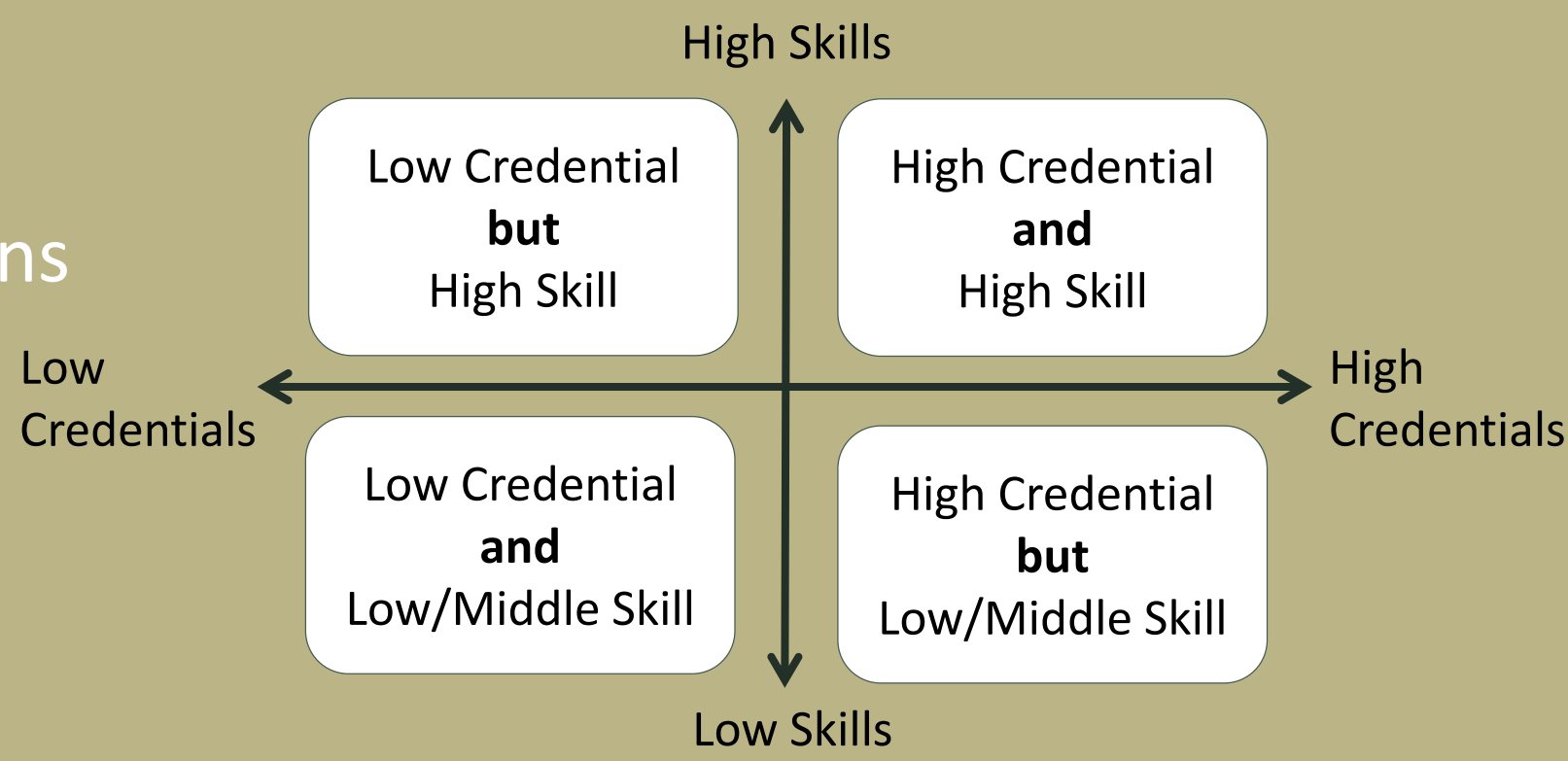
## Research Question

How do individual educational specifications affect economic outcomes differently in association with societal educational expansion and skills diffusion?

## Missing Perspectives

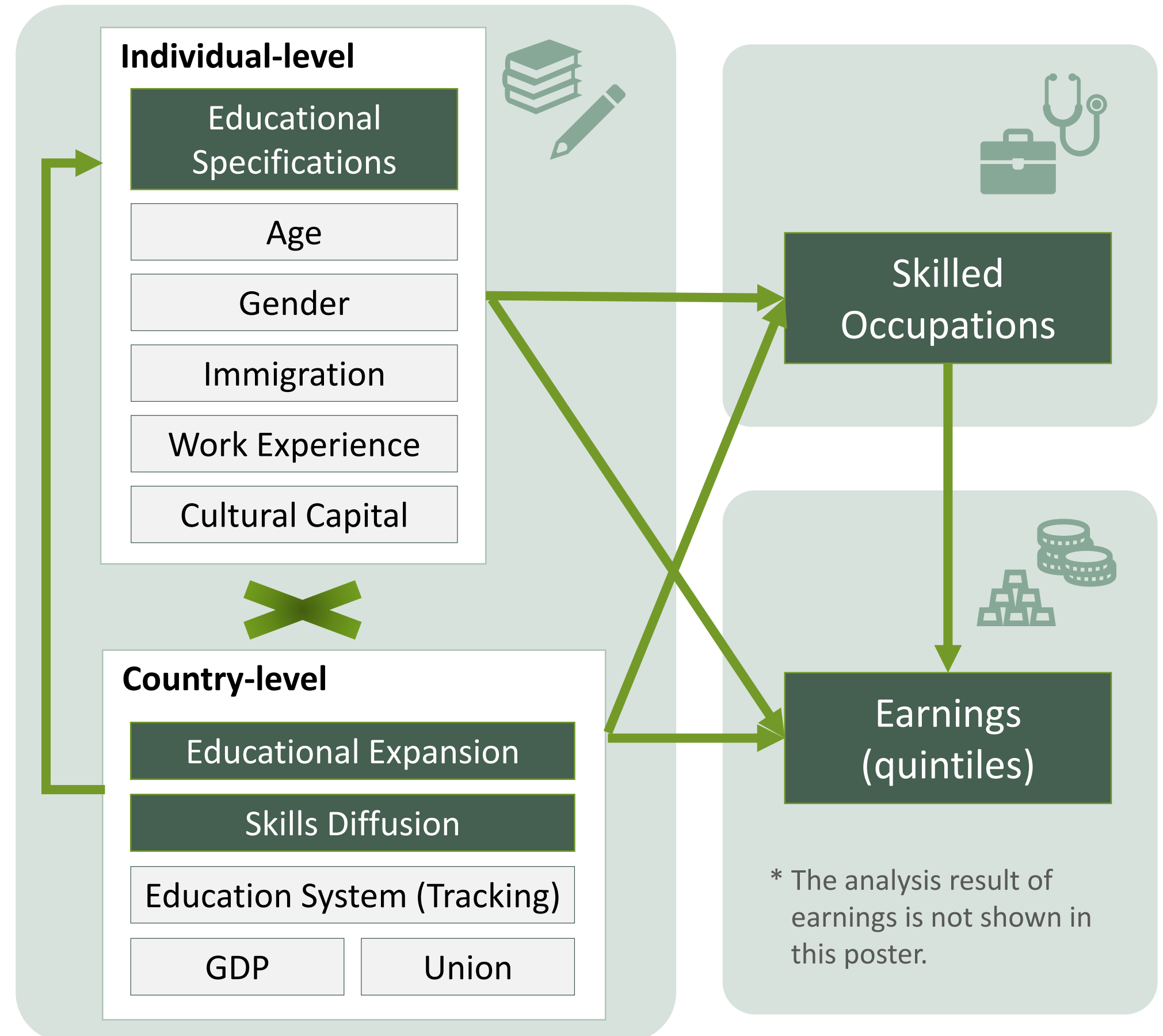
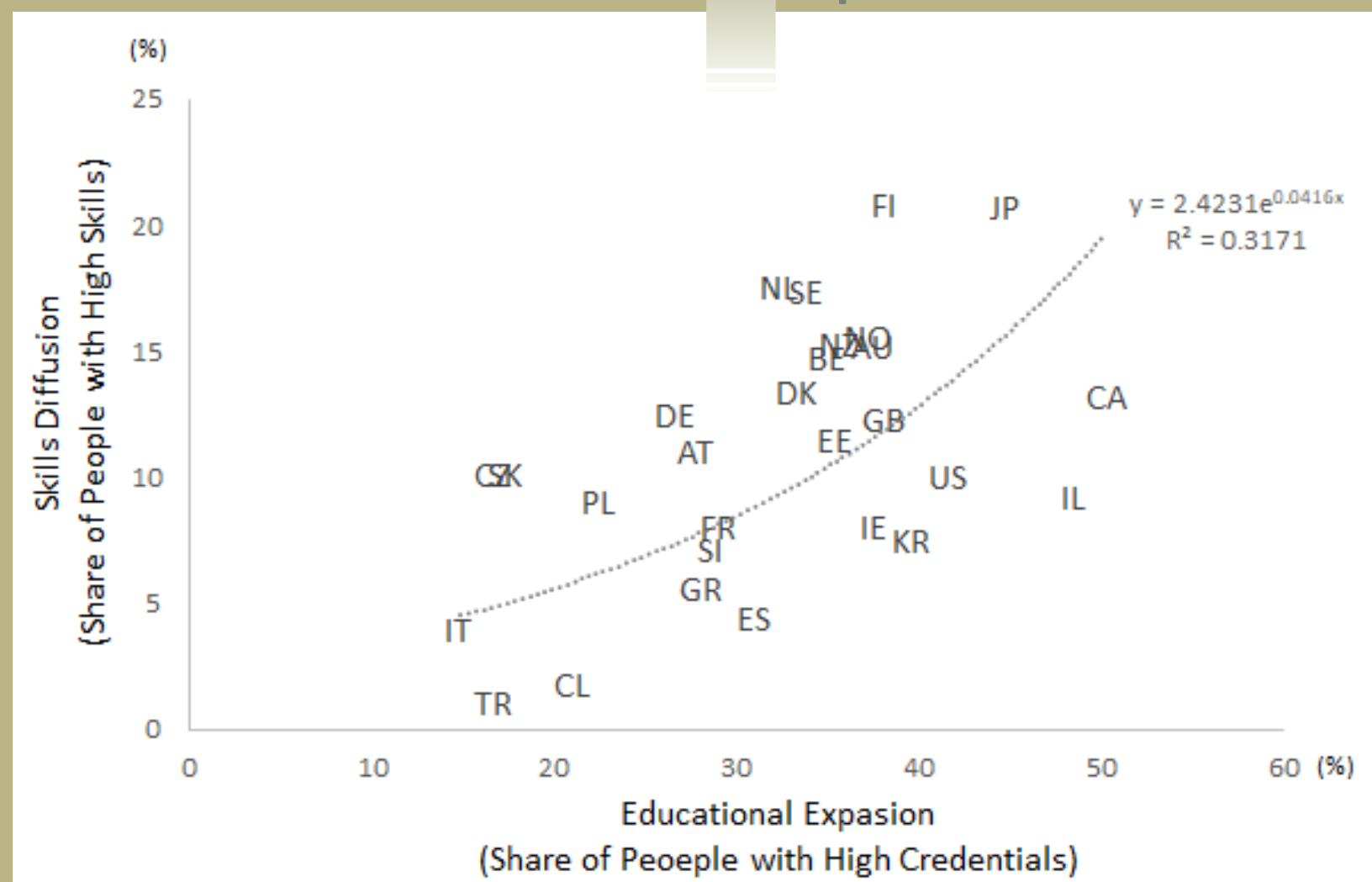
The economic values of credentials and skills should differ depending on...

### 1. Individual Educational Specifications



### 2. Societal Educational Expansion and Skills Diffusion

Determine the scarcity of educational specifications.



## Data & Method

- PIAAC (an international survey of adult skills by OECD): more than 100,000 individuals in 26 countries [only publicly available valid data]
- Multilevel binary logistic regression analysis

## Results and Discussion (the analysis of skilled occupations only)

- High credentials and high skills generally contribute to economic rewards. (especially credentials)
- But, the impact of high credentials *diminishes* in response to educational expansion. (especially when they are *unaccompanied* by high skills)

- Nevertheless, the impact of high credentials *increases* in association with skills diffusion. (especially when they are *accompanied* by high skills)
- Meanwhile, the impact of high skills unaccompanied by high credentials is persistent.
- Consequently, as long as educational expansion and skills diffusion progress at the same speed, those who possess only high credentials without high skills are significantly penalized, while highly skilled people maintain their rewards regardless of the possession of credentials.

Independent Variable		Skilled Occupations	
		B	S.E.
Level One (Individual)	Educational Specifications:		
	Reference = Neither High Credential nor High Skills		
	High Credential & High Skills (HCHS)	3.128 ***	0.126
	Only High Credential without High Skills (HCLS)	3.074 ***	0.056
Cross-Level Interactions	Only High Skills without High Credential (LCHS)	1.266 ***	0.130
	Educational Expansion * HCHS	-0.020 ***	0.003
	Educational Expansion * HCLS	-0.032 ***	0.002
	Educational Expansion * LCHS	-0.006	0.004
	Skills Diffusion * HCHS	0.017 *	0.007
	Skills Diffusion * HCLS	0.009 *	0.004
	Skills Diffusion * LCHS	-0.013	0.009
Level Two (Country)	Educational Expansion	-0.001	0.011
	Skills Diffusion	0.003	0.018
	Index of Tracking	0.093	0.092
Variance	Random Effect Covariance Structure (Intercept)	0.121 **	
Model Fit	-2LL	646339.345	
	AIC	646341.345	

Note: This table extracts the effects of education related variables at individual, country, and cross levels due to space limitations, although other variables (see the right-centre diagram) are controlled for in the analysis.

