



# **Human Capital in European Regions and Cities Drivers of Sustainable Growth and Jobs**

**High-Level Policy Roundtable**

Résidence Palace, Brussels  
Monday, 28 February 2011

## The Lisbon Council

# Human Capital Leading Indicators: How Europe's Regions and Cities Can Drive Growth and Foster Social Inclusion

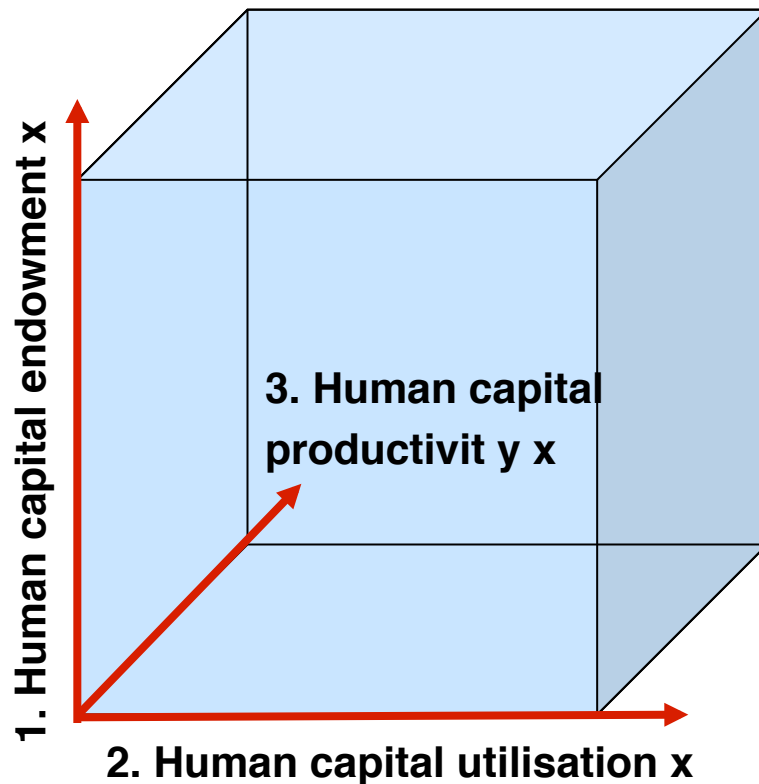
Peer Ederer, PhD

Director, human capital center, The Lisbon Council

Brussels, 28th February 2011

## Mankiw, Romer and Weil revised...

return on human capital =

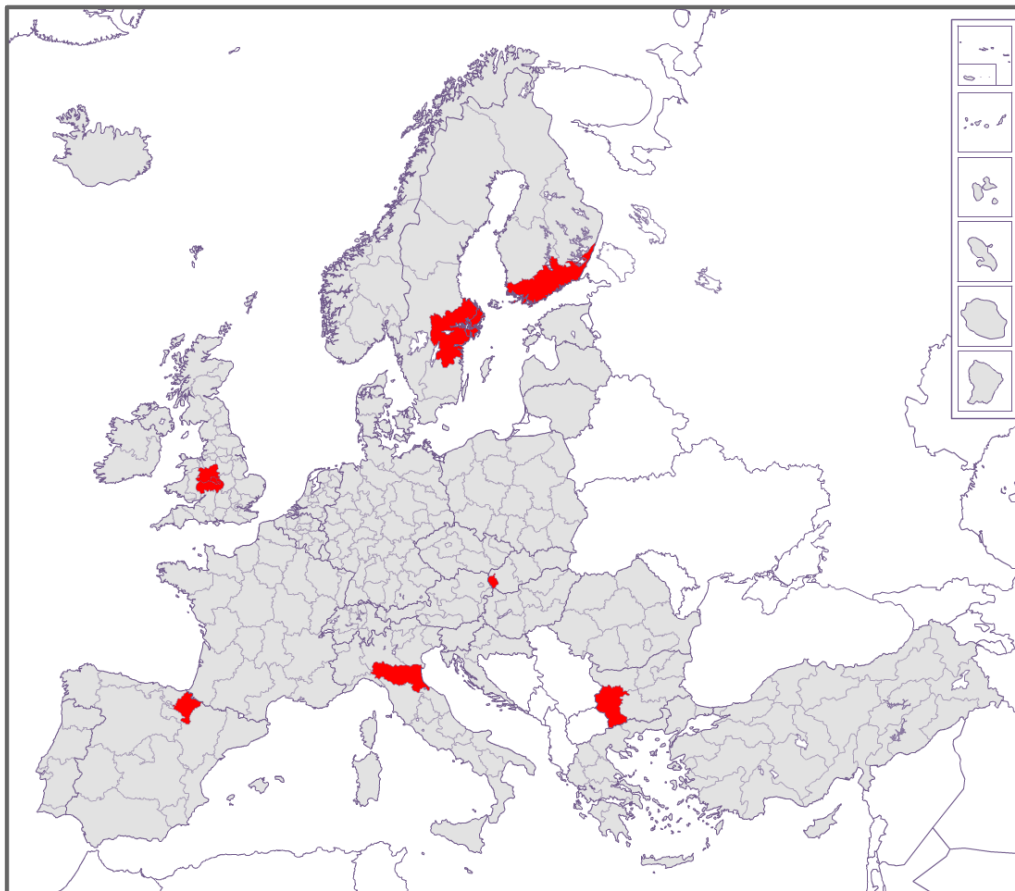


+

return on  
financial  
capital

= GDP

## Focus regions are spread across Europe



Bratislava, Slovakia

Emilia Romagna, Italy

Helsinki, Finland

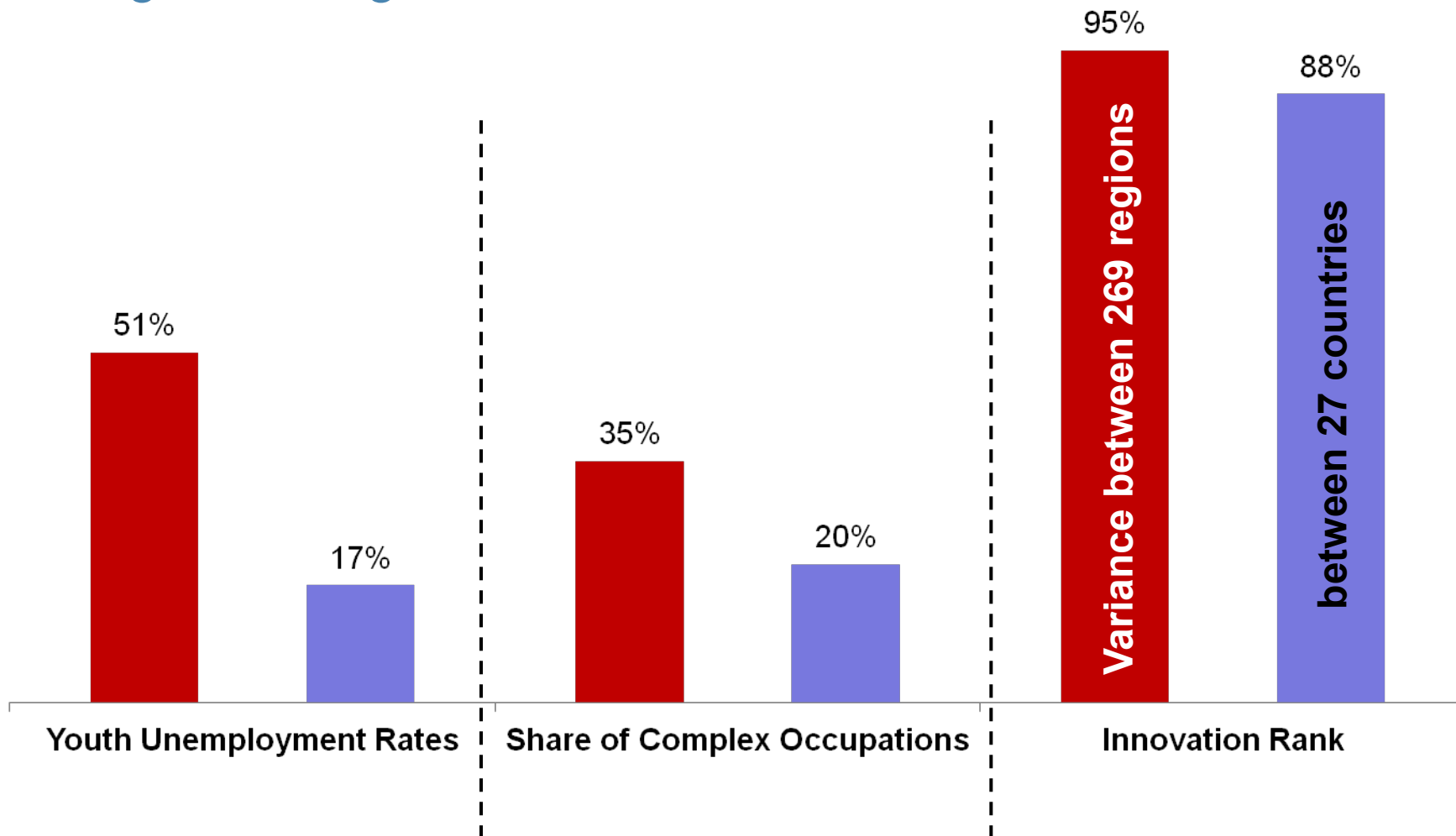
Navarra, Spain

Sofia, Bulgaria

Stockholm, Sweden

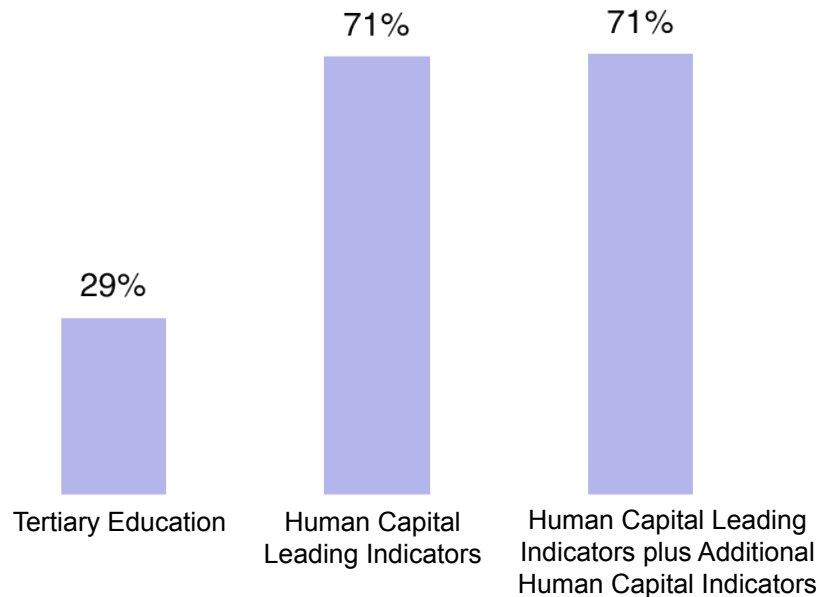
West Midlands, UK

Performance differences (measured by variance) between regions is higher than between countries

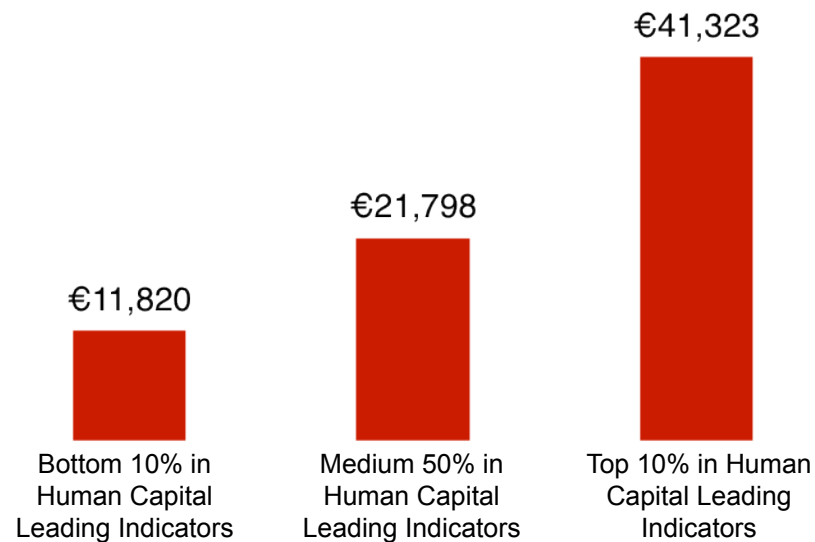


## Top Performance in Human Capital Leading Indicators Closely Predicts Regional Income Differences

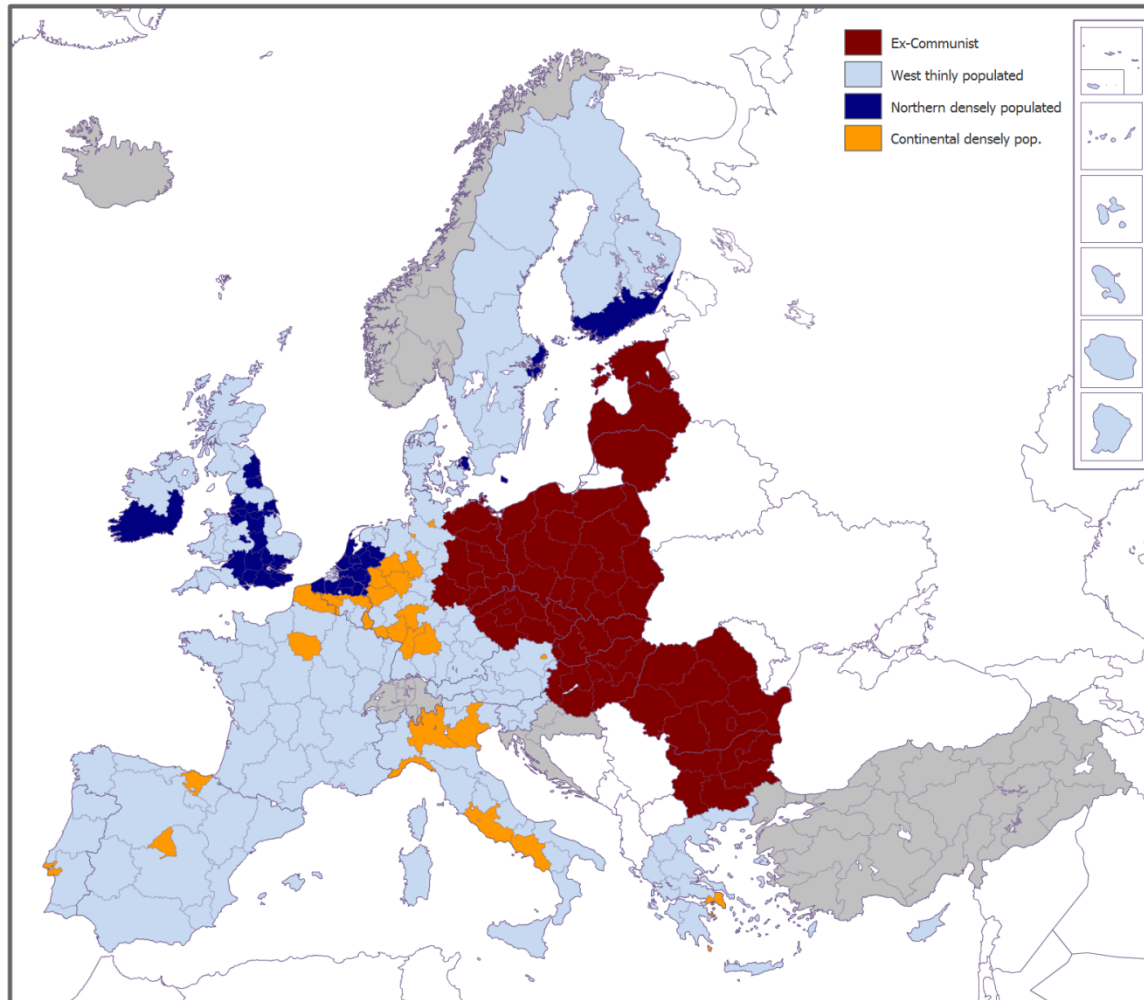
Correlation of Regional GDP Per Capita  
with Human Capital Indicators (measured by  $R^2$ , the  
coefficient of determination)



Fit of Regional GDP Per Capita with Performance in  
Human Capital Leading Indicators



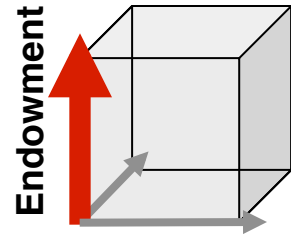
## Four groups of regions with different preconditions



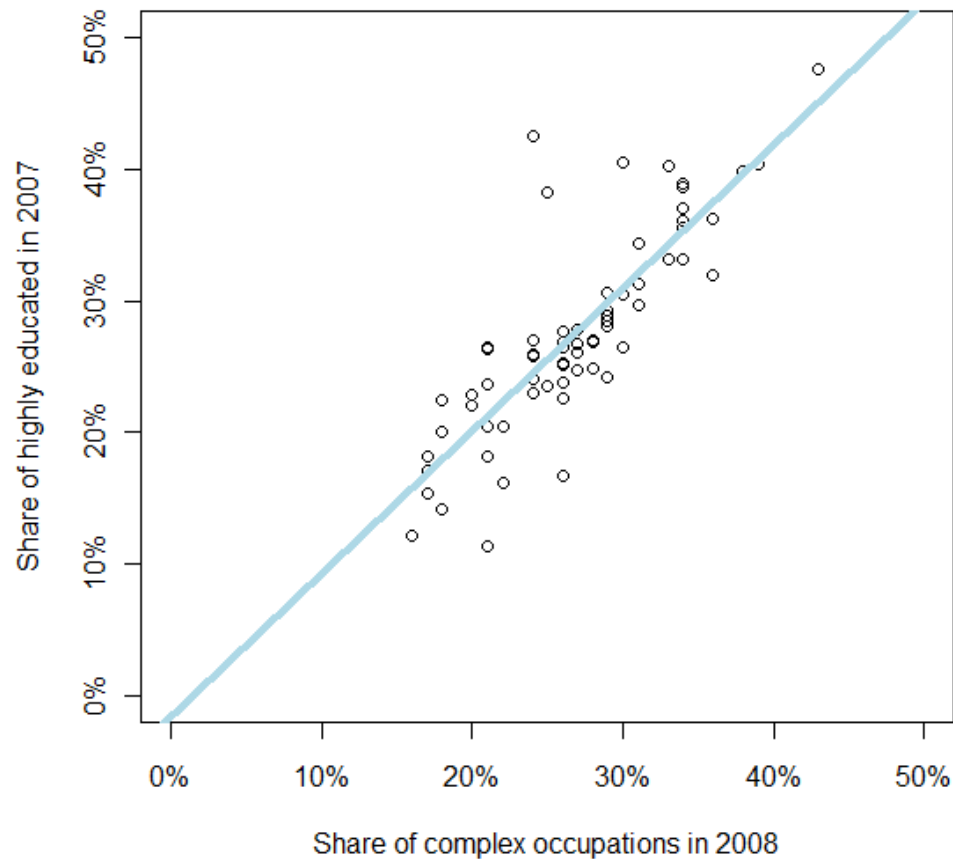
Continental densely populated regions appear less educated but are nonetheless richer than the North – why?

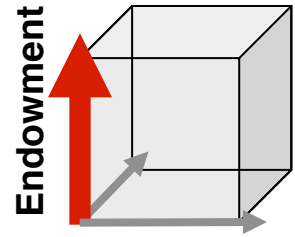
	GDP PPP per capita	Share of complex occupations	Share of highly educated
Northern Regions	29.292 Euro	30%	30%
Continental Regions	31.357 Euro	23%	24%



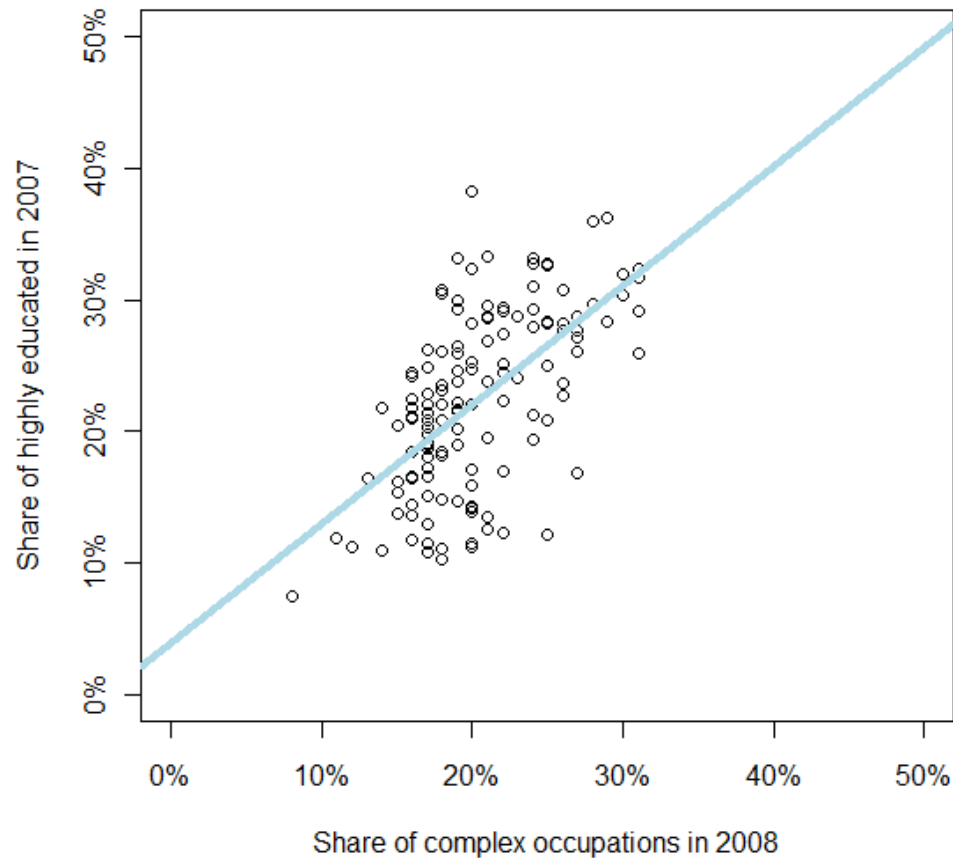


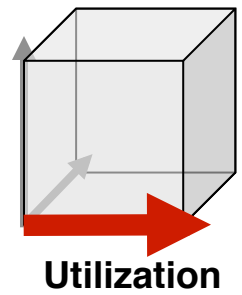
In densely populated regions  
education leads to better jobs...



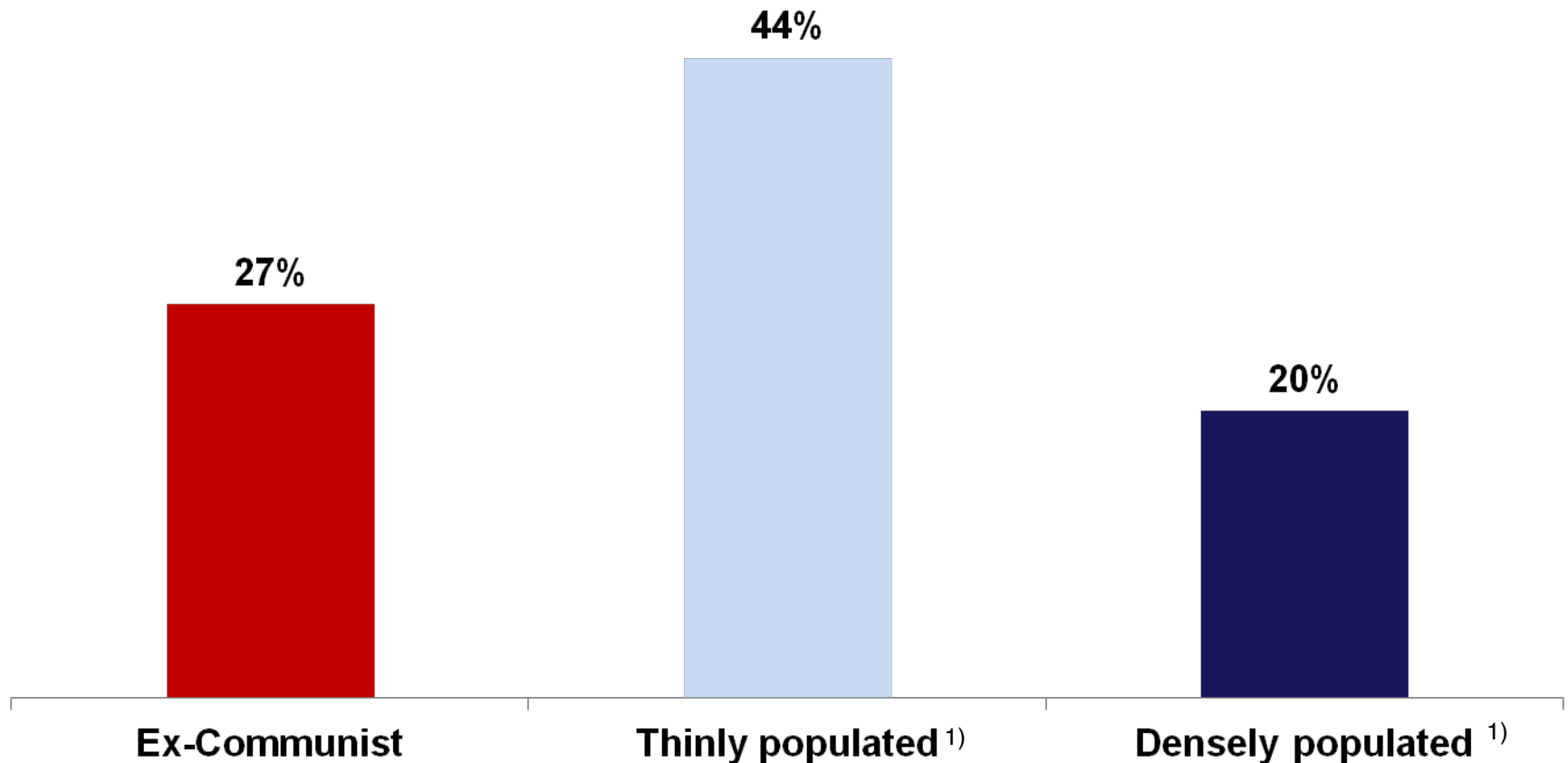


...but less so in thinly populated regions.





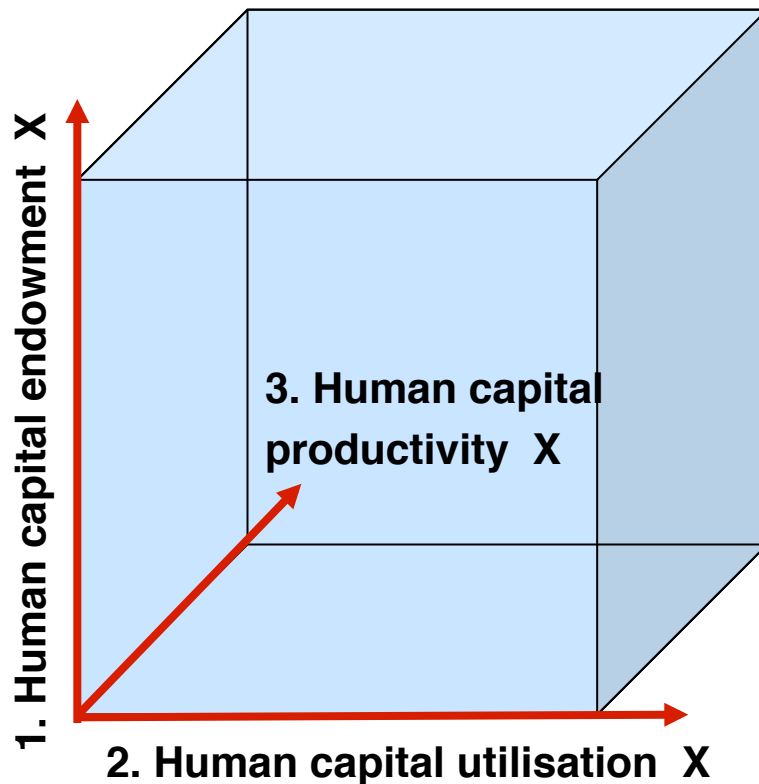
Youth unemployment accounts for income variation – especially in thinly populated regions



1) excluding ex-communist regions

2) including two dummy variables indicating whether a region includes a capital or not and whether the region is in Northern Europe or in Continental Europe.

## The four leading human capital indicators for regions



- 1) the number of complex jobs in a region or city
- 2a) the number of jobs available for young people and the ease with which young people can find employment
- 2b) the ability to get the unemployed back to work (thereby avoiding high levels of longterm unemployment)
- 3) The intensity of investment in research and development and the volume of local patent applications, as a proxy for the “innovativeness” of the region.