



European Commission

Directorate General for Enterprise and Industry

Education and the Lisbon Strategy for growth and jobs

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and training for growth, jobs and social cohesion
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Set-up of the presentation

- Returns to education
- Skills and industrial competitiveness
- Education and the Lisbon strategy
- Policy discussion: Both quality and quantity matter

Private returns to education

- Education is a good investment
- One additional year of schooling tends to increase a worker's wage by 5-15% (Psacharopoulos and Patrinos, 2004)
- Skill-biased technological change may further increase private returns in the future

Social returns to education

- Do we observe similar benefits at macro-level?
- Yes! When good data are used (e.g. from Cohen and Soto)
- A 1 year increase in average educational attainment of the workforce tends to increase productivity by something like 7-10%
- Also some evidence that education levels increase future productivity growth

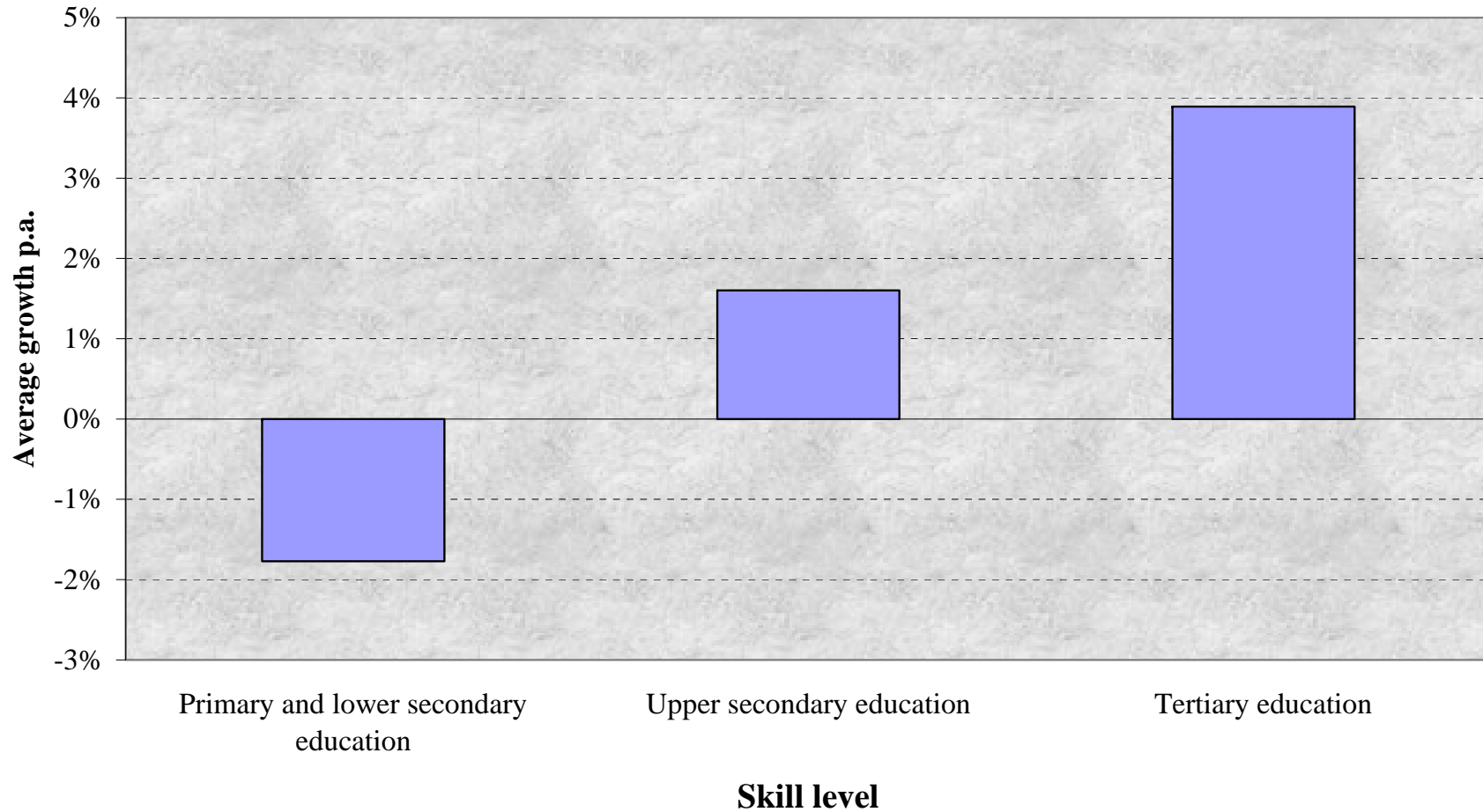
The three faces of human capital

Human capital

- is a direct production factor
- is the major input into R&D and innovation activities
- helps to build absorption capacity to introduce new technologies

Skill-intensity of jobs rises in all sectors

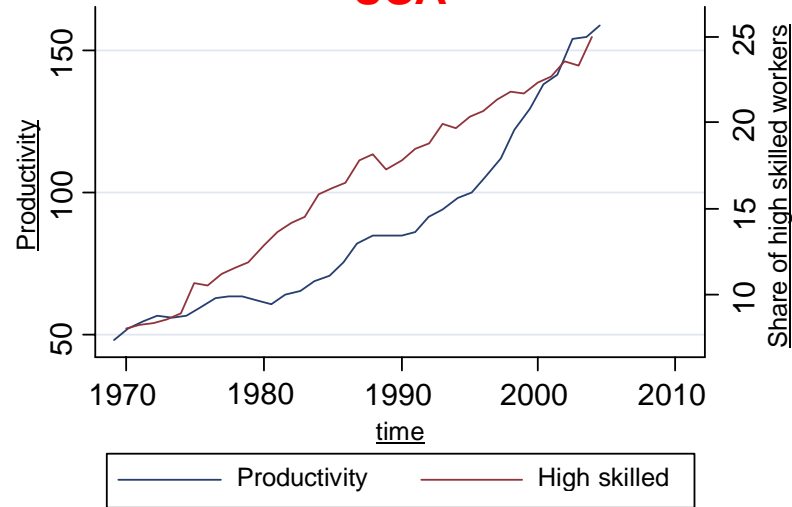
Employment growth by skill level in EU-27, 2000-2005



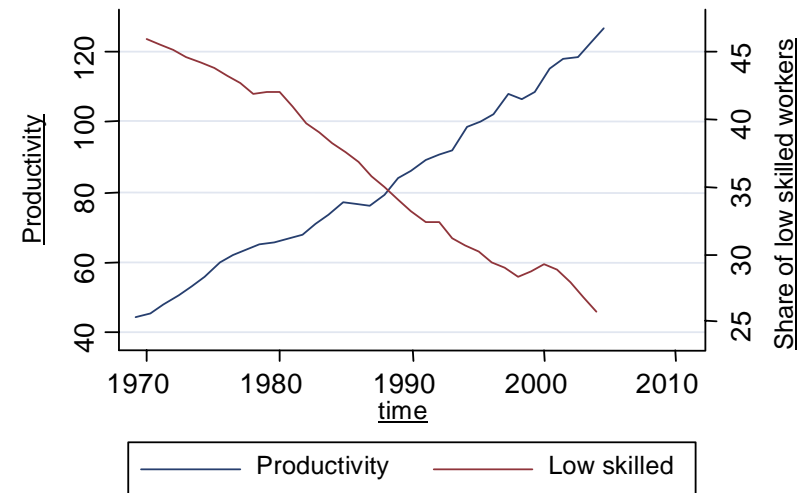
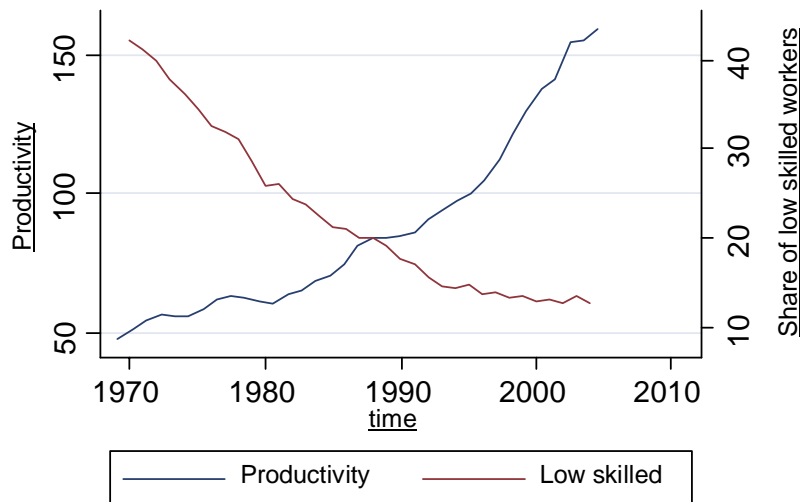
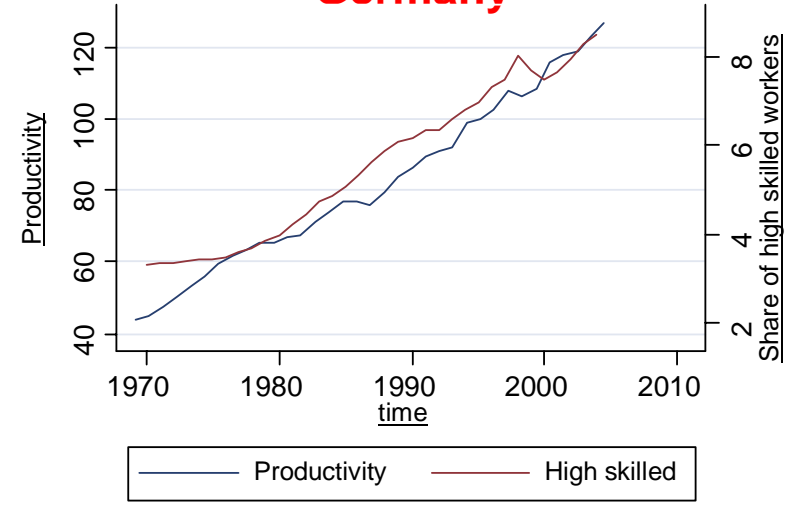
Contribution of education and training to innovation and growth

Labour productivity (1995=100) and skill use in manufacturing, EUKLEMS data

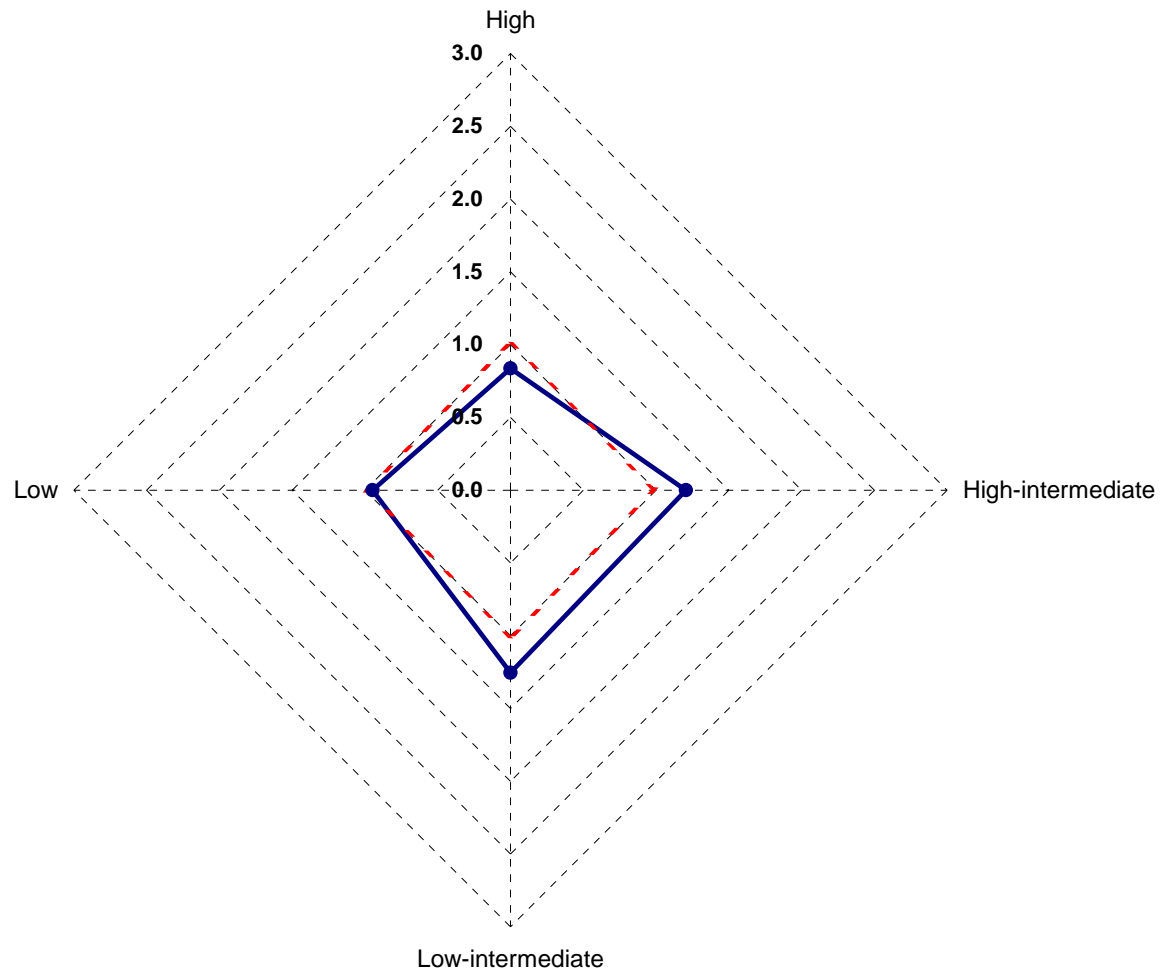
USA



Germany



Revealed comparative advantage in the EU



Contribution of education and training to innovation and growth



Skill-upgrading and employment shifts between sectors

A recent study commissioned by DG ENTR shows that skill-upgrading (i.e. changes in the skill composition within industrial branches) contributes more to changing demand for higher- vs. lower-skilled people than shifts of workers across sectors or industries



Education and the Lisbon strategy

“Europe needs to invest more and more effectively in human capital in order to improve access to employment for all age groups, to **raise productivity levels** [...], and to build a workforce that can adapt to change”

Employment in Europe 2006

Contribution of education and training to innovation and growth

Education targets within Lisbon strategy

- reduce early school leaving
- increase upper secondary school completion
- improve reading literacy
- increase participation in life long learning
- increase the number of university graduates in mathematics, science and technology

What would reaching these targets bring us?

- Gelauff and Lejour (CPB) calculate that reaching these skill targets would increase GDP in the EU by about 0.5%
- But many Member States need to increase their effort if the EU is to reach its education targets

Policy discussion: both quality and quantity matter

- When more people stay longer at school, the labour force decreases which slows down GDP growth in the short and medium term
- Improving **educational quality** can be less costly, but also very effective as Wößmann and Hanushek show
- Should advanced economies like in the EU put more resources into **higher education** (Vandenbussche-Aghion-Meghir) or are **early childhood interventions** most effective (Heckman)?