

Skills and the future of work

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Introduction

- ☐ Why do we care about skills?
- ☐ How have skill demands (and supplies) been evolving?
- ☐ What are the key policy challenges?
- ☐ OECD contribution to evidence base: PIAAC
- ☐ Conclusions

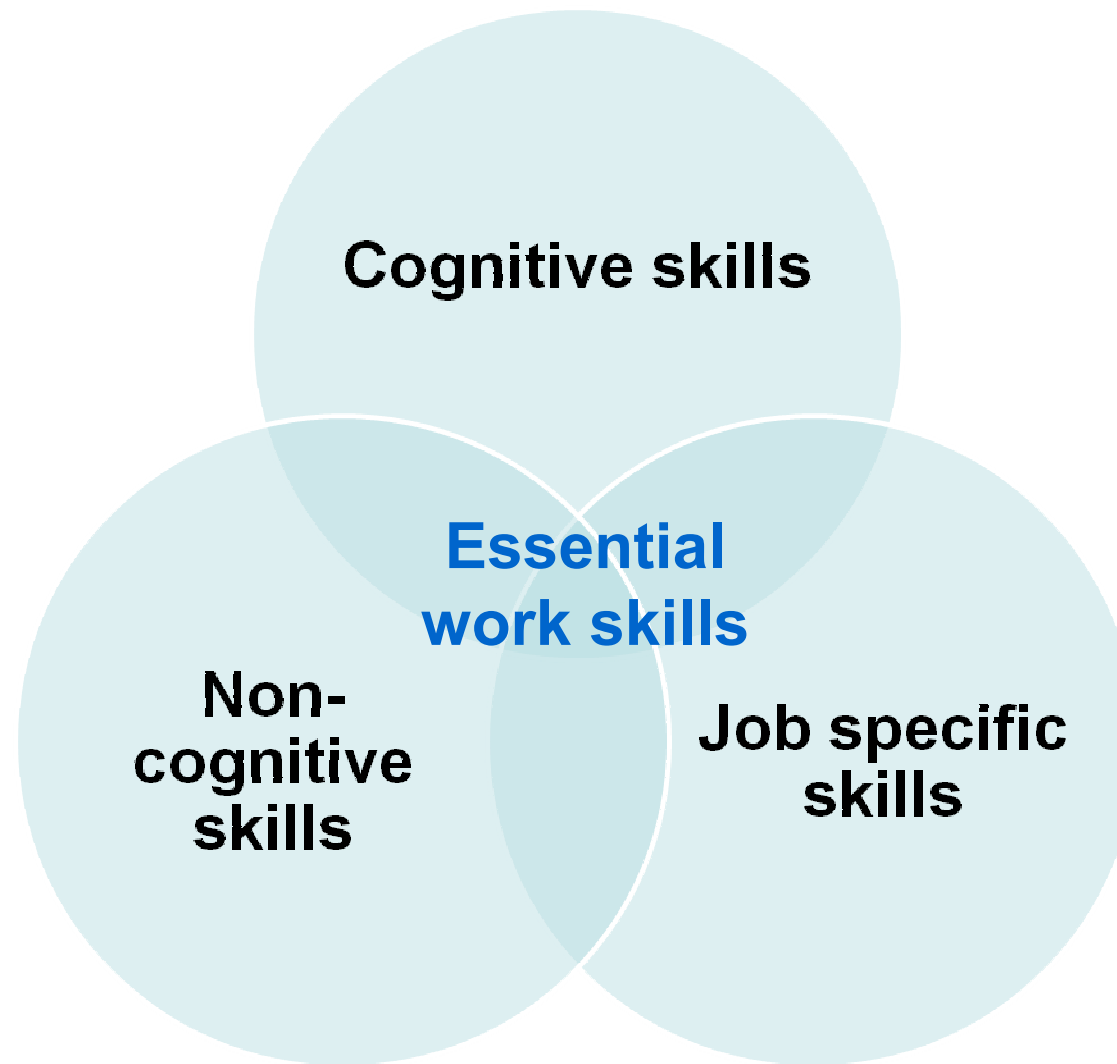


WHY DO WE CARE ABOUT SKILLS?

Why are skills important?

- ❑ Technological change and globalisation are placing a premium on higher-level skills
 - This has partly driven increases in earnings inequality
- ❑ Other labour market outcomes are also closely tied to skills
- ❑ Evidence of strong link between skills and economic growth
- ❑ But which skills are important? Here the answer is less clear

Identifying key workplace skills



Taking an evidence-based approach

- ❑ Need to go beyond defining typologies of essential skills by improving:
 - Our measures of skills
 - The evidence base for the link between skills and labour market outcomes and the role of socio-economic and institutional factors
 - Our understanding of how skills are acquired, maintained and lost, and the implications for education and training policies



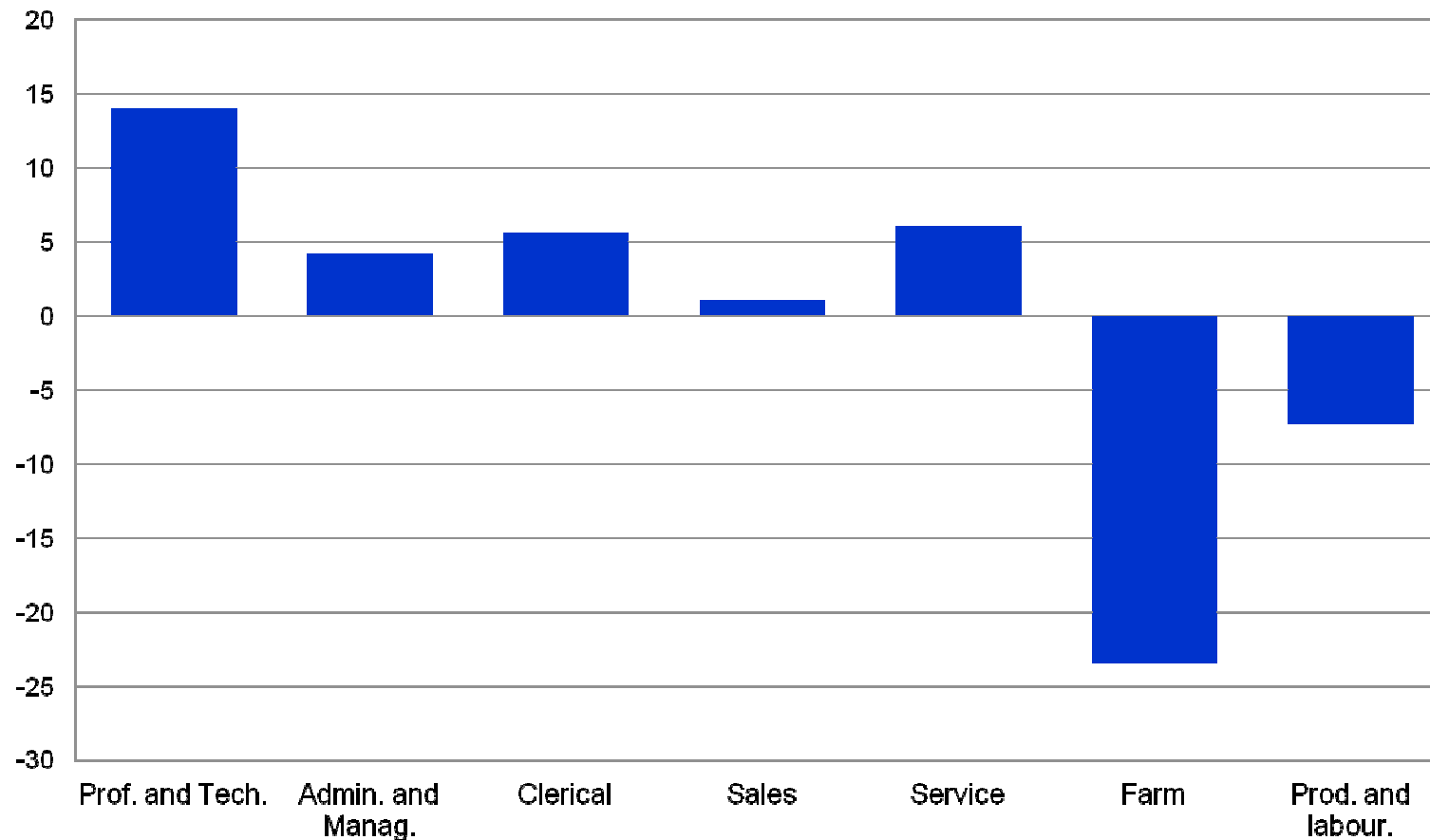
HOW HAVE SKILL DEMANDS (AND SUPPLIES) BEEN EVOLVING?

Considerable evidence or rising skill demands

- ❑ The proportion of the workforce with tertiary level qualifications has risen substantially in all OECD over the past few decades:
 - However, this has tailed off in countries like the US where the proportion was already high
 - But there has been a remarkable increase in others, e.g. Korea, Spain (with some questioning of whether a refocusing on VET is required)
- ❑ But qualifications have several limitations as measures of skills
 - They say little about the types of skills workers possess or which are required in the workplace
 - A more detailed picture of changes in skill demands can be built up by looking at occupations and job tasks

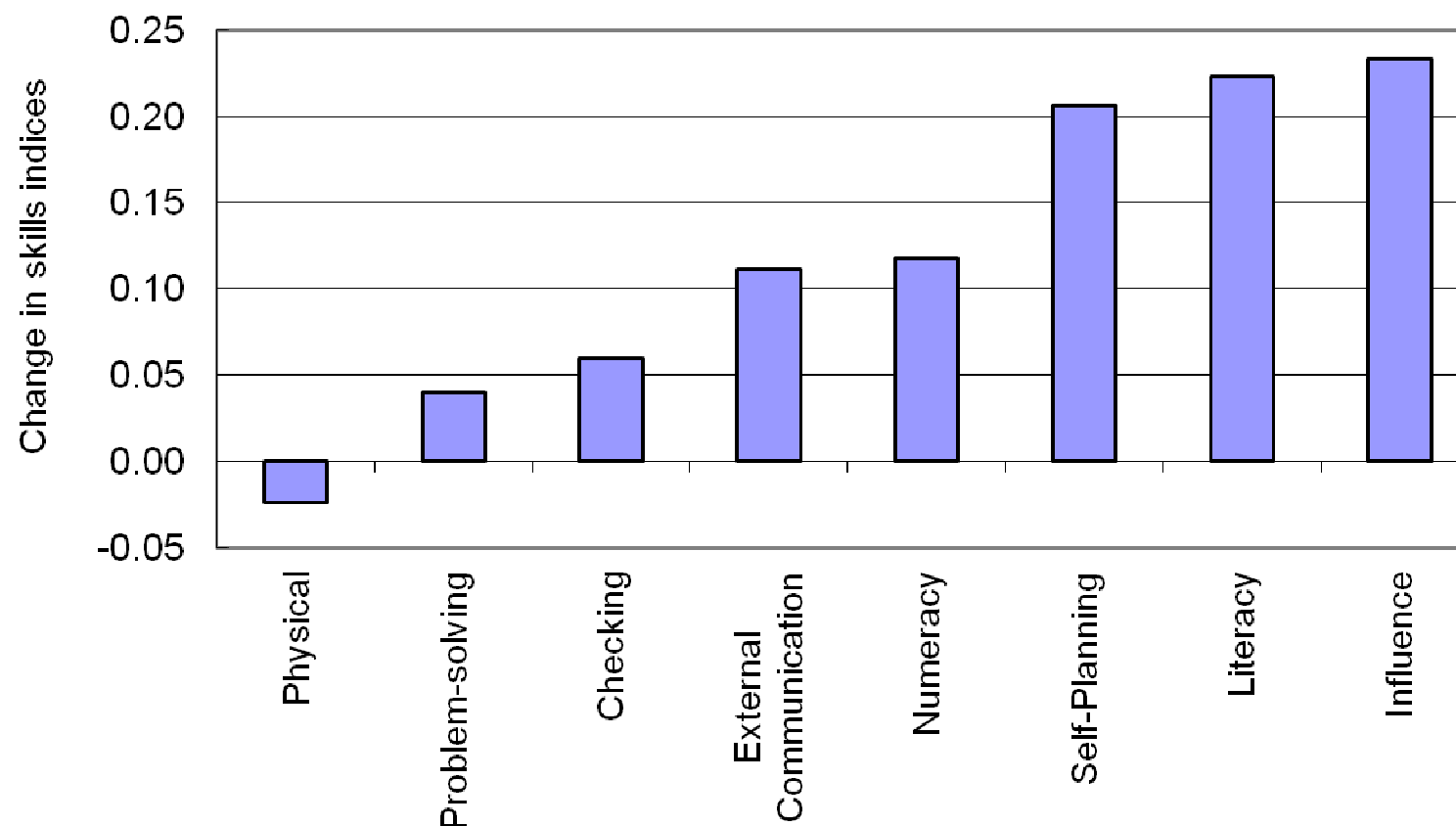
Occupational data also point to skill upgrading

Change in employment by occupation in OECD countries*, 1960-2009
% point change in the share of each occupation in total employment



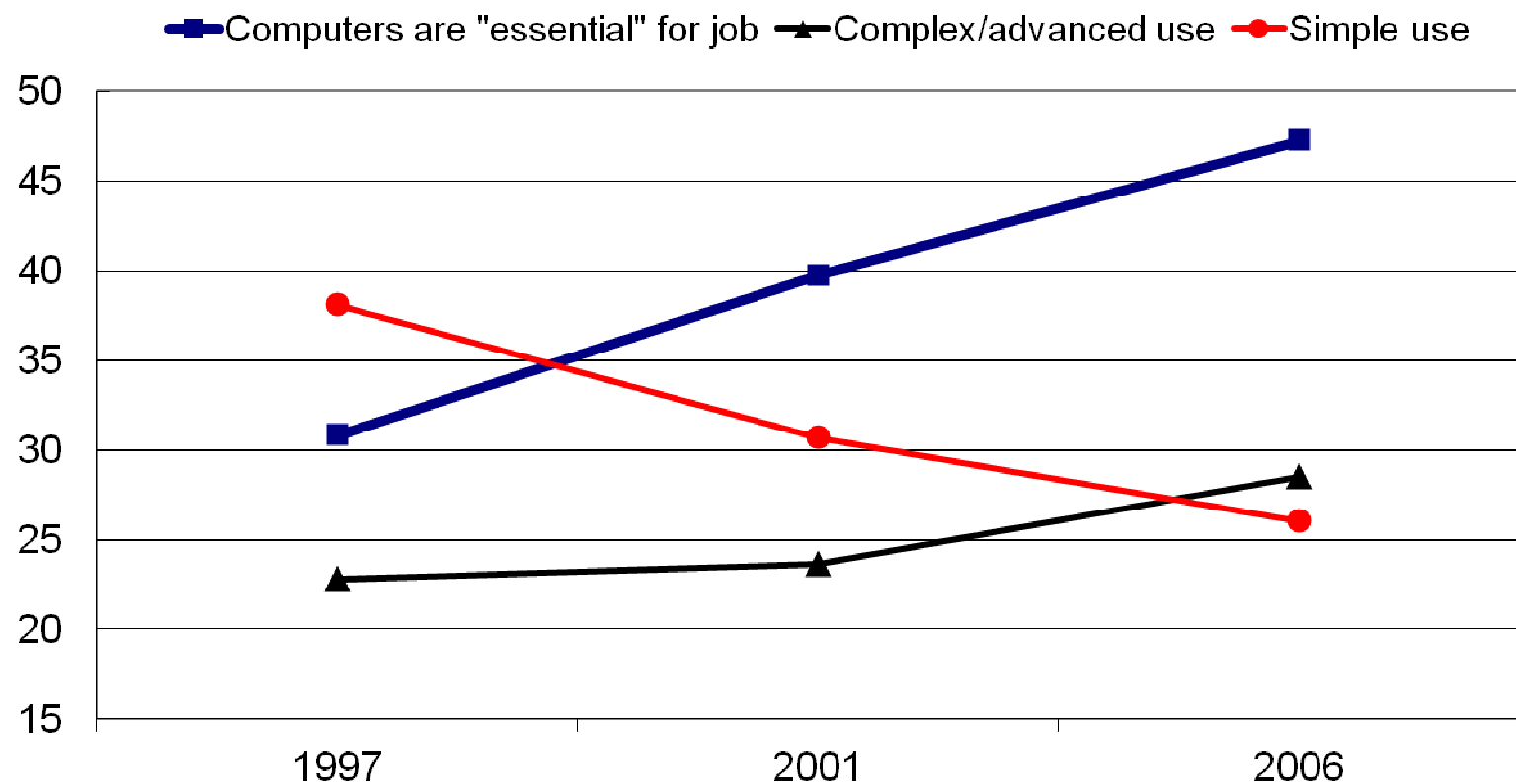
Using job task data to go beyond occupations (1)

Changes in the use of generic skills in the UK, 1997-2006



Using job task data to go beyond occupations (2)

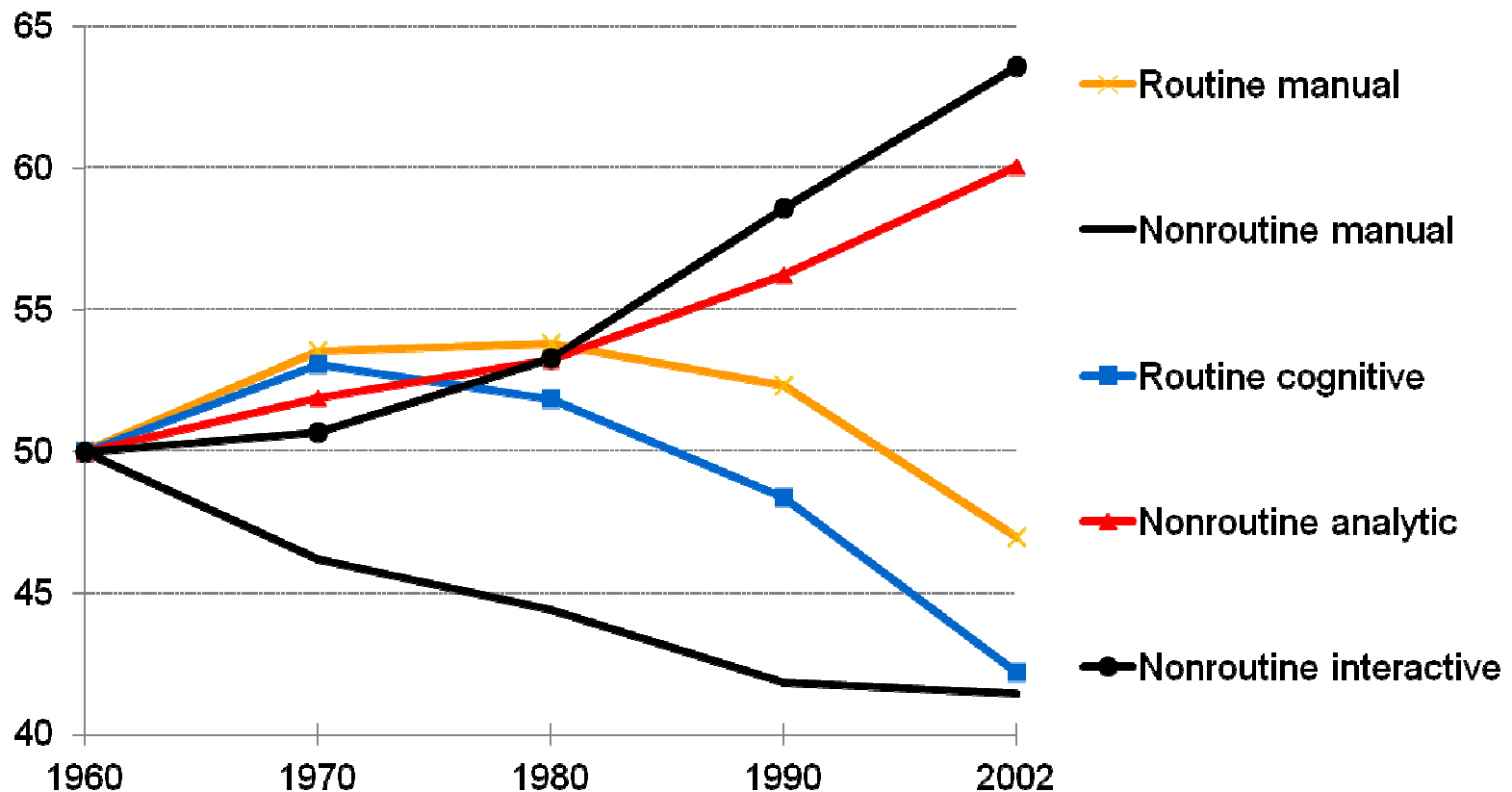
Computer use in the UK, 1997-2006 (% of all employees)



Source: UK Skills Survey as reported in Felstead A., D. Gallie, F. Green and Y. Zhou, "Skills at work, 1986-2006", ESRC Centre on skills, Knowledge and Organisational Performance based at the Universities of Oxford and Cardiff. 2007.

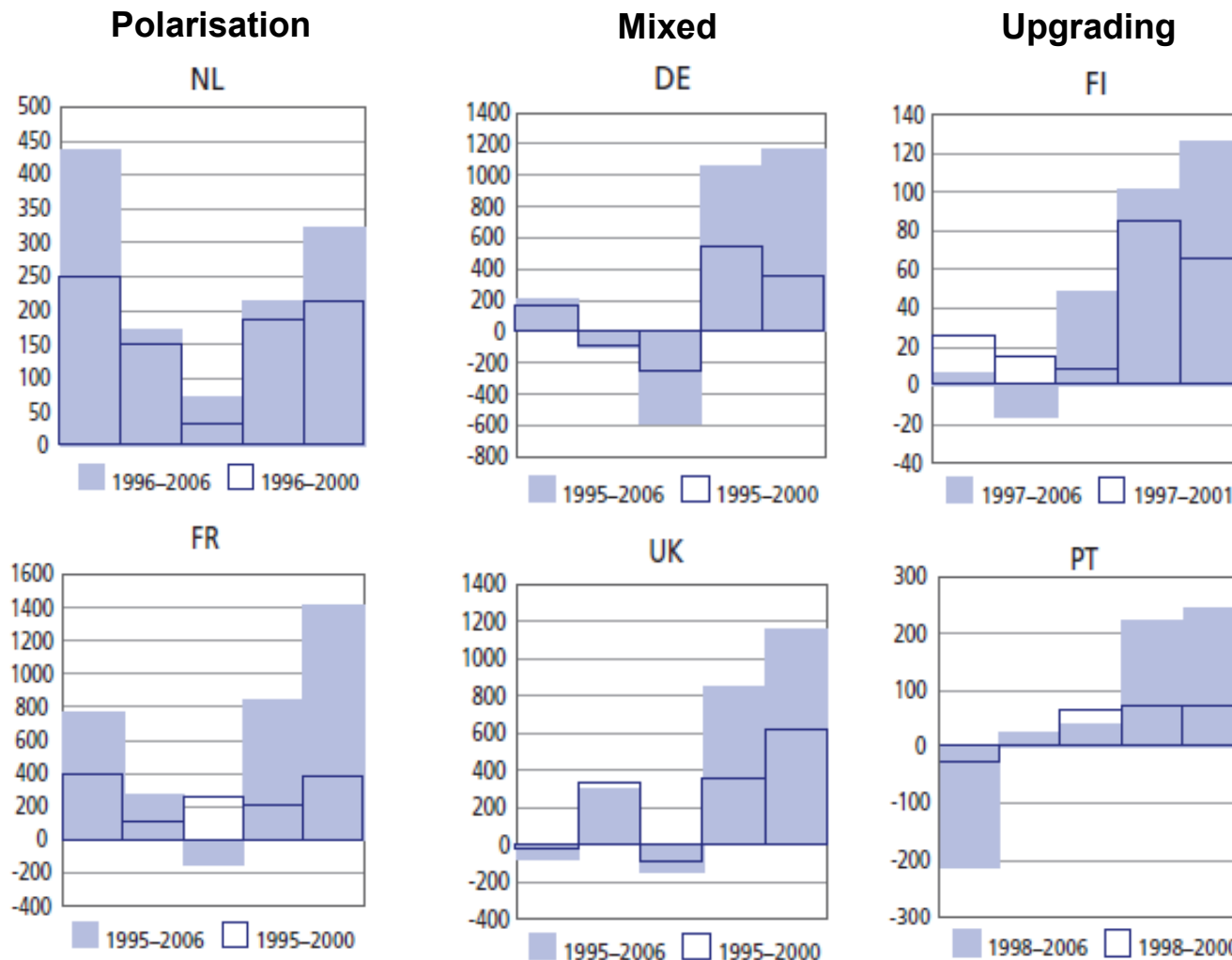
Is the demand for skills becoming polarised? (1)

Change in labour demand in the US in terms of routine and non-routine tasks, 1960-2002



Is the demand for skills becoming polarised? (2)

Job growth by wage quintile ('000s)





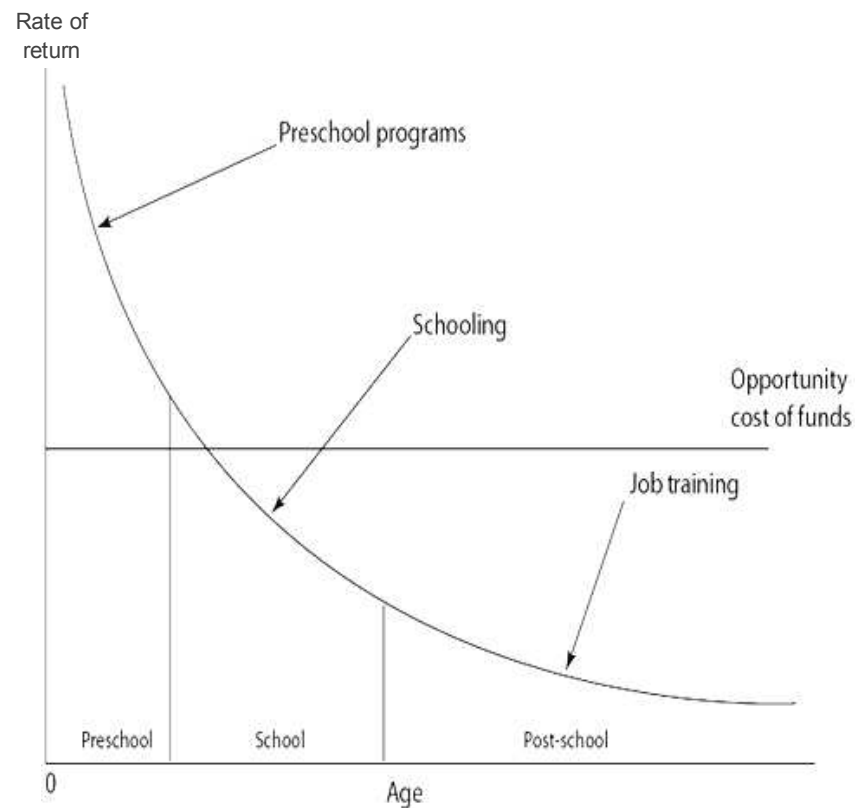
WHAT ARE THE KEY POLICY CHALLENGES?

When to invest?

Where in the life-cycle is it most effective to invest limited public resources in skill development?

- ✓ In some cases, early investments in skills may be best because:
 - The returns accrue over a longer time period than those made later in the life-cycle
 - Early investments (in cognitive and non-cognitive skills) raise the productivity and ease of acquiring skills later on
 - But as also pointed out by Heckman (in Cunha, Heckman, Lochner and Masterov, 2005), early investments need to be followed up by later investments to be productive

Chart 4. “The Heckman Diagram”
Rates of return to human capital investment across the life-cycle*

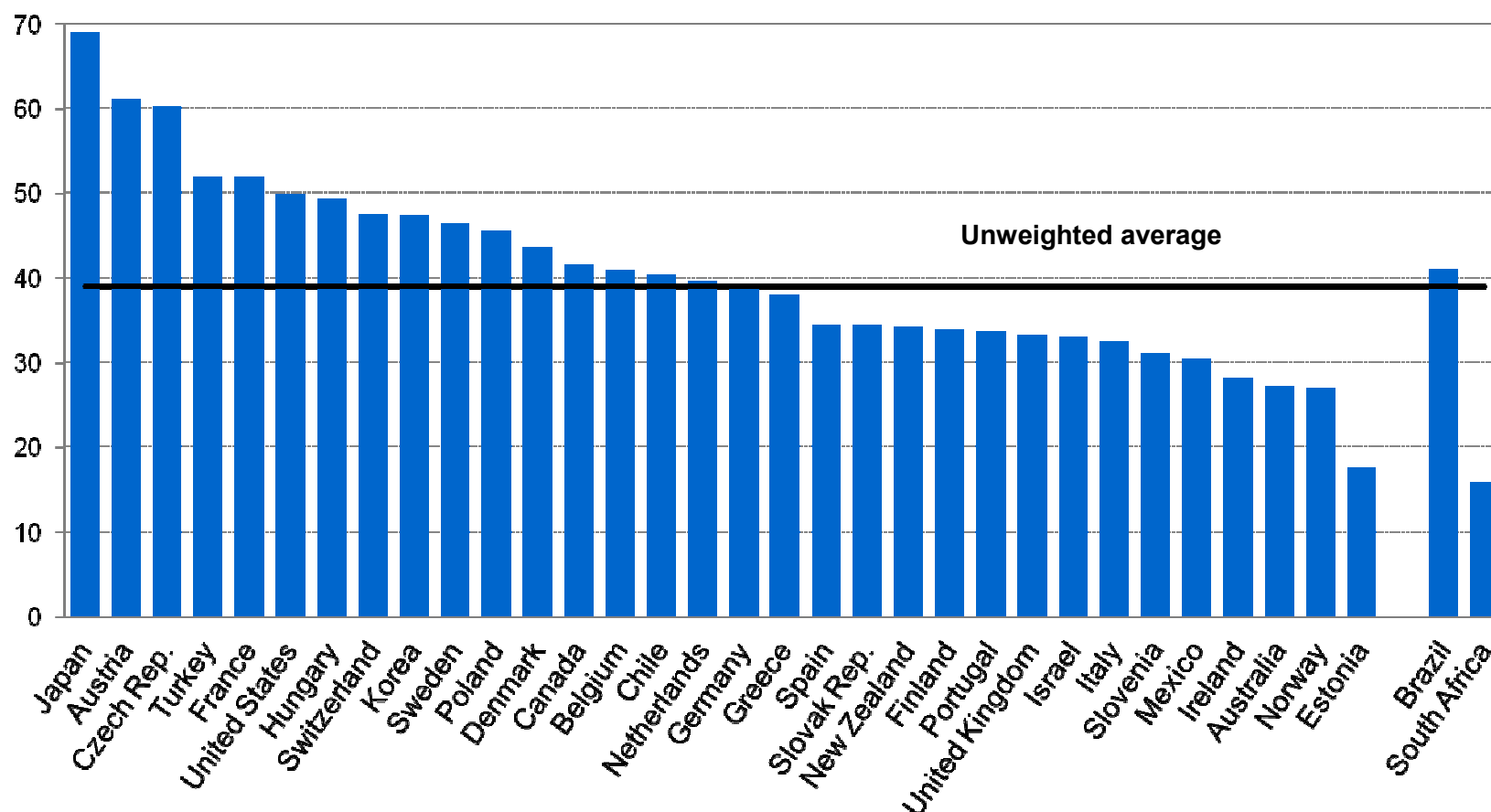


* Initially setting investment to be equal across all ages.
Source: Cunha, Heckman, Lochner and Masterov (2005).

How can responsiveness be improved?

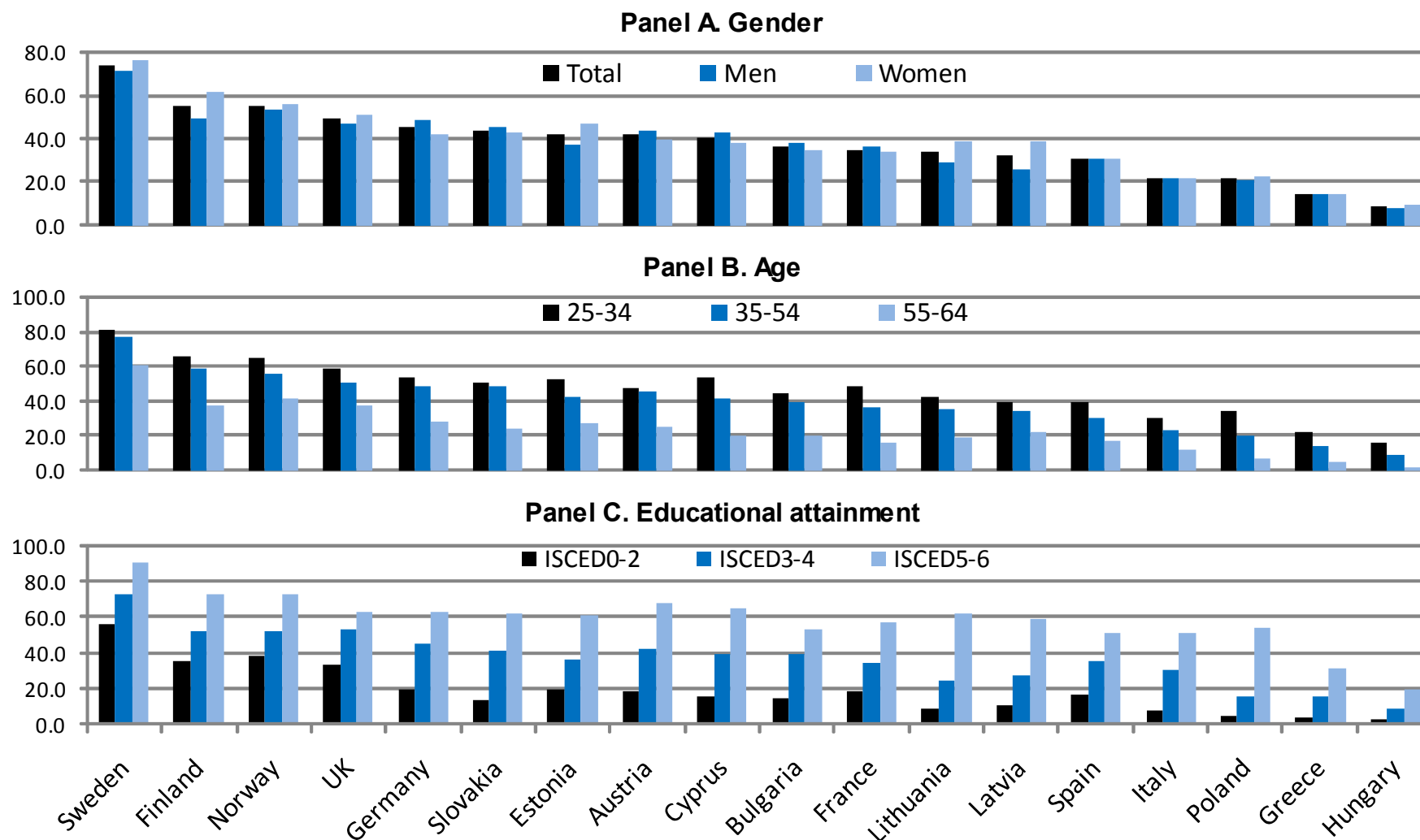
Is over-qualification a problem?

Share of tertiary graduates in non-graduate jobs* (%)



How to tackle inequalities in skill acquisition?

Chart 1. Participation in education and training, 2007 (% of each population group)





OECD CONTRIBUTION TO EVIDENCE BASE: PIAAC

A new international survey of adult skills

The OECD Programme for the International Assessment of Adult Competencies (PIAAC)

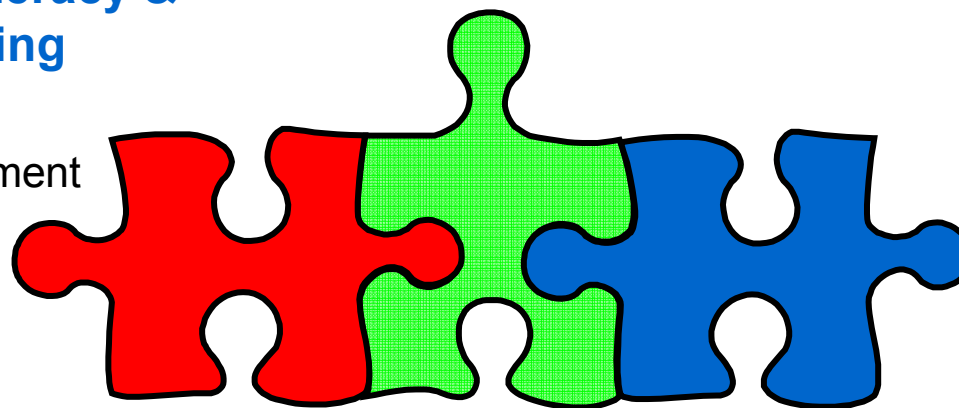
- ✓ Household-based survey of population 16-65 (minimum of 5000 respondents per country) in 2011-2012
- ✓ 25 countries participating

Measures of generic skills used at work

- Based on job tasks

Literacy, numeracy & problem-solving skills

- Direct assessment



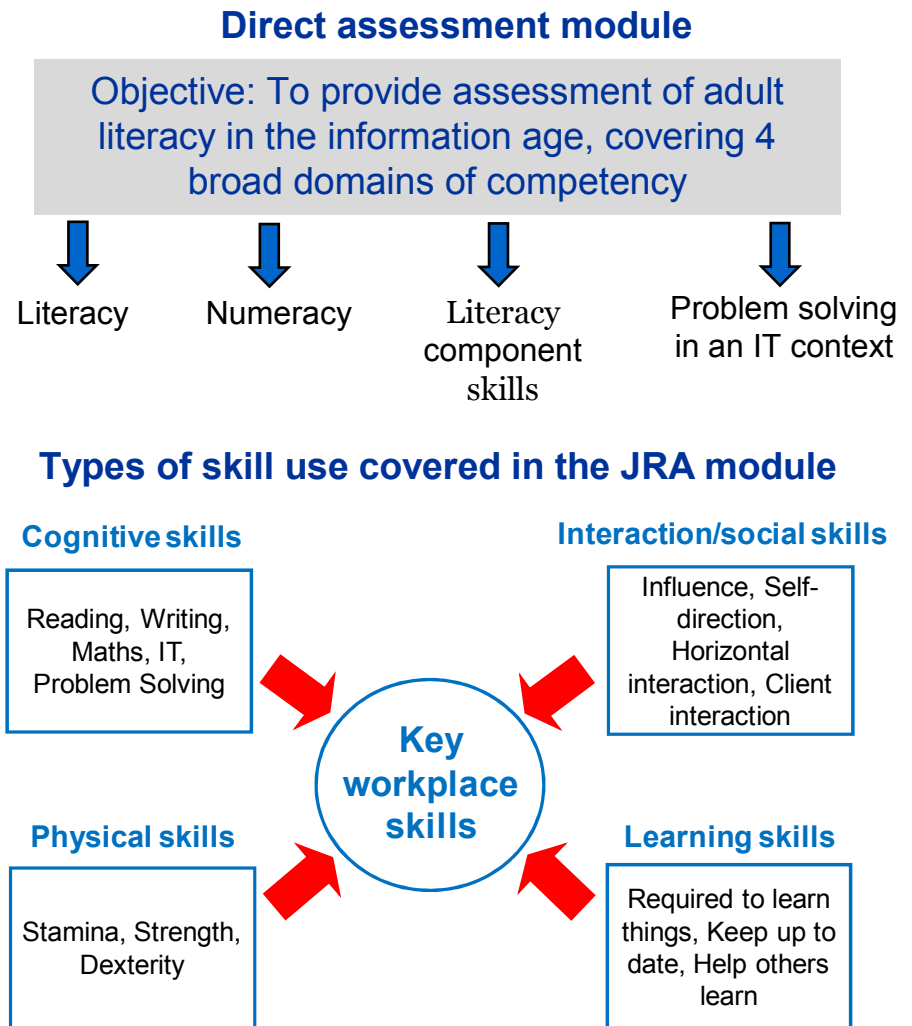
Skill formation & outcomes

- Background questions on adult learning, labour-market status, earnings, health ...

PIAAC: a new window on adult skills

PIAAC will extend and improve on the work of previous international surveys of adults skills by:

- ✓ New measures of problem solving skills, component literacy skills and skills used at work
- ✓ Tighter focus on links between skills and labour market outcomes
 - Determine importance of generic skills
- ✓ Comparable measures of both formal and less formal training and barriers to training



Conclusions

- ❑ Technological change and globalisation are placing a growing premium on higher-level skills
- ❑ However, we need to know more about what these skills are and how they are acquired, including:
 - The role of generic work skills vs more job specific skills
 - The returns to skills
 - Efficacy of training programmes
 - The role of broader socio-economic factors and institutional settings in determining skill demand and skill acquisition
- ❑ Lastly, improving access to learning opportunities (and take up) also remains a major challenge
- ❑ PIAAC should shed further light on these issues