



# LEARNING FOR COLLABORATION, TRUST AND INTERCULTURAL UNDERSTANDING

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# Introduction

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- We know a lot about the impact of human capital (education, skills) on economic growth
- We know something about the impact of education on measures of social capital and social progress
- We know actually very little on what exactly explains the impact of education on measures of social capital and social progress
- We know very little about the educational approaches and interventions which optimise the impact on social progress



# Outline

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1. Impact of education on measures of social capital, trust and tolerance
2. Disentangling the impact of education: the role of cognitive and non-cognitive skills
3. How can education improve fostering skills that matter for collaboration and trust?

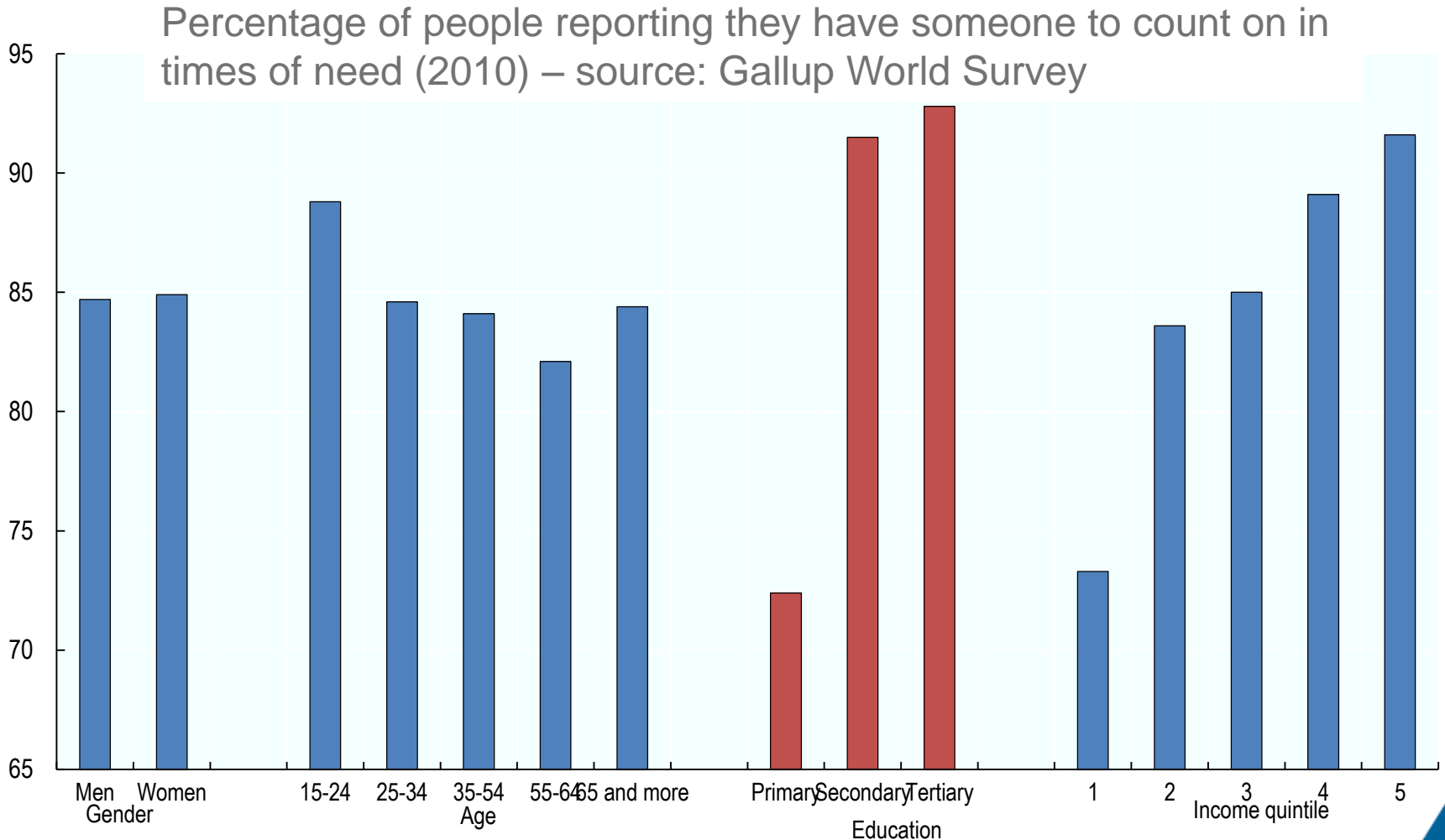


# IMPACT OF EDUCATION ON SOCIAL CAPITAL, TRUST AND TOLERANCE

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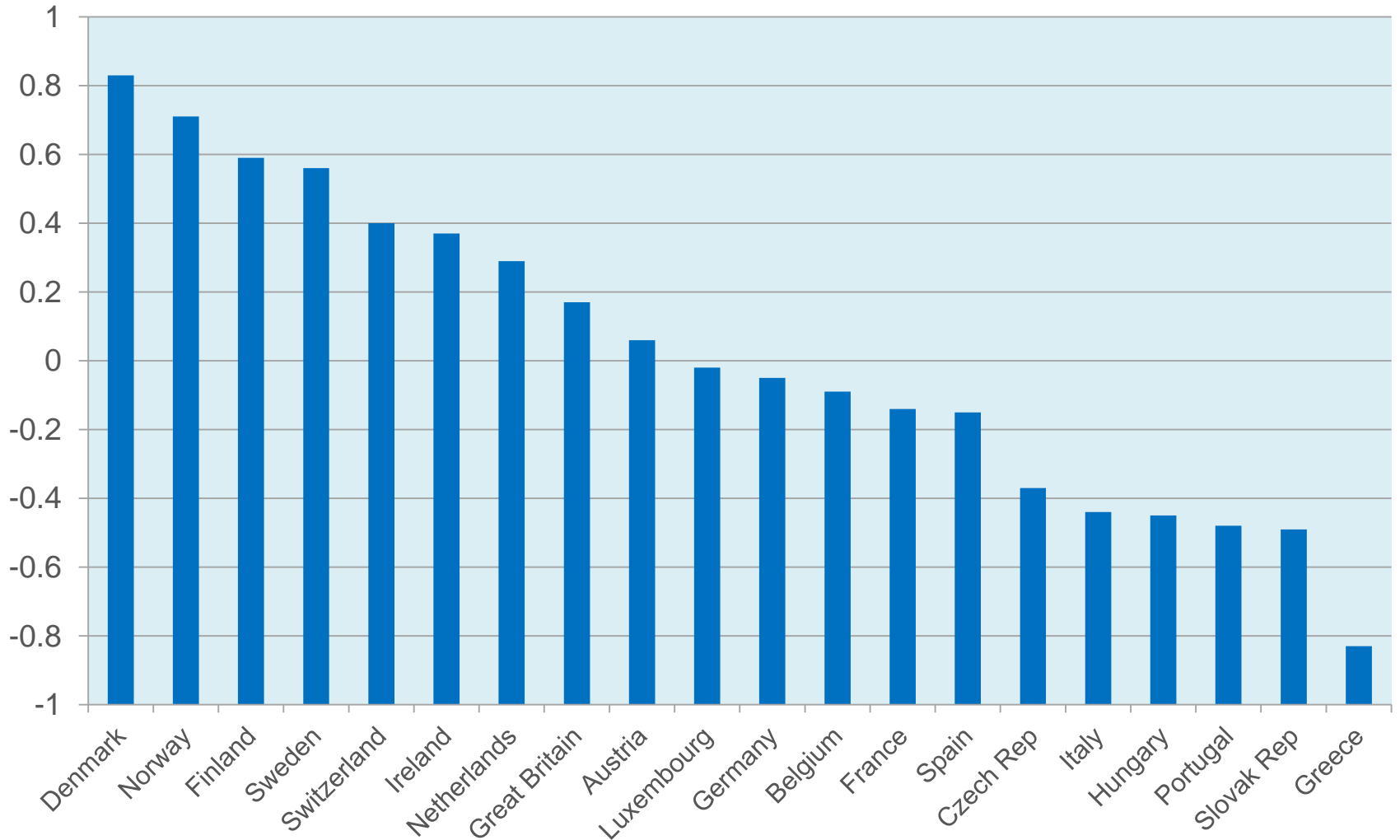


# Social capital measures by gender, age, education and income



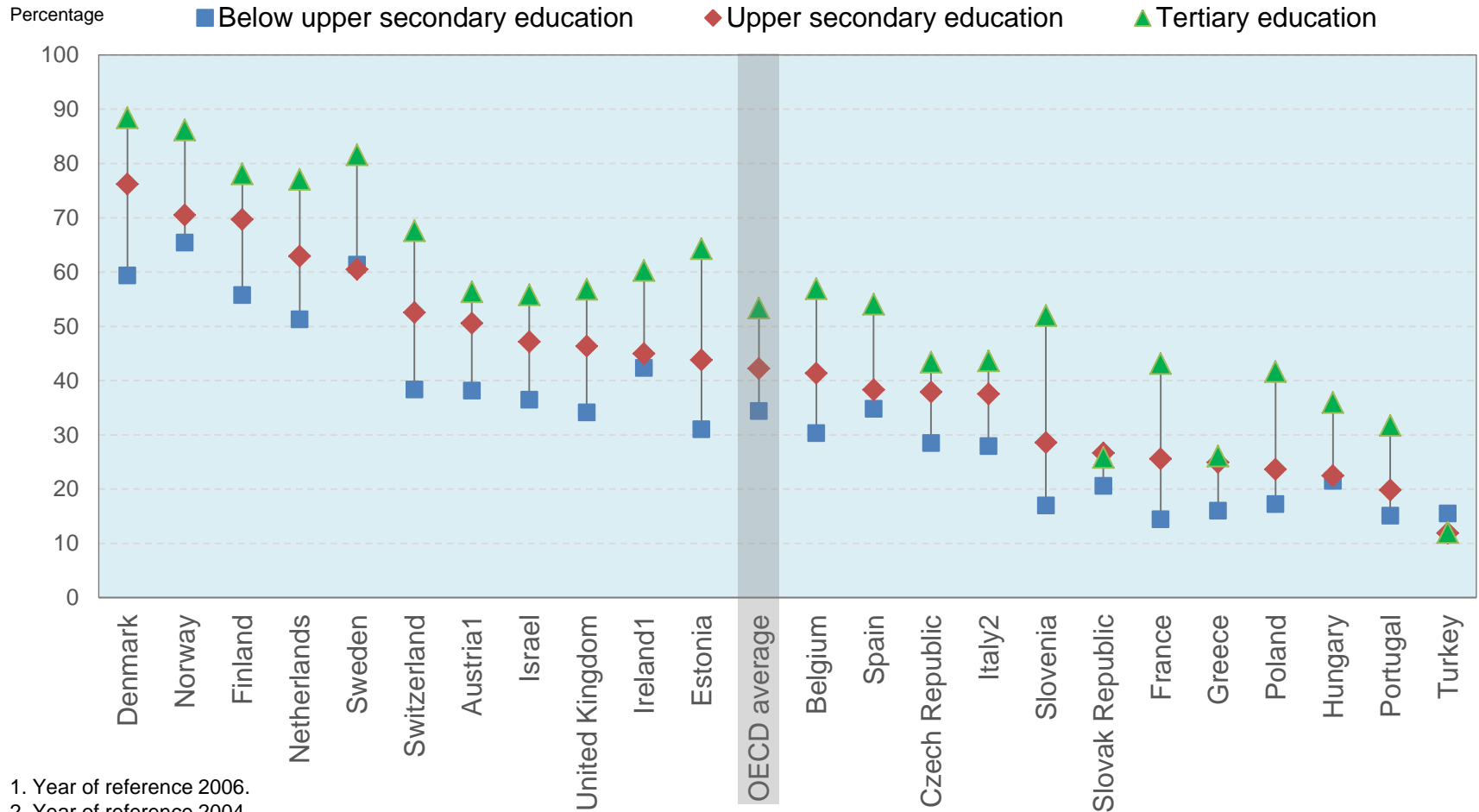


# Levels of interpersonal trust (Europe)





# Proportion of adults expressing interpersonal trust, by level of educational attainment (2008)



1. Year of reference 2006.

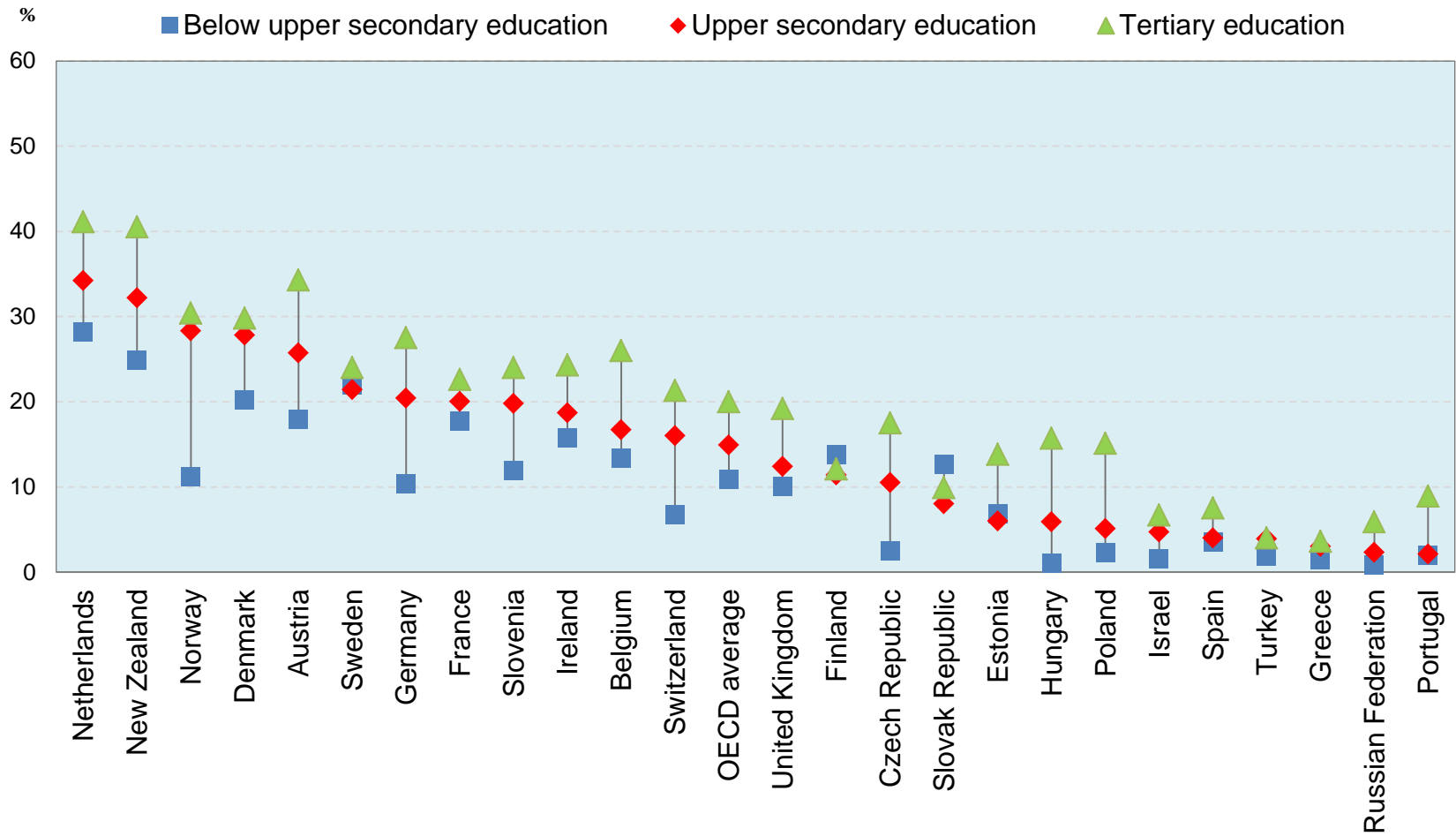
2. Year of reference 2004.

Countries are ranked in descending order of the proportion of adults expressing interpersonal trust among those who have attained upper secondary education.

Source: [www.oecd.org/edu/eag2010](http://www.oecd.org/edu/eag2010)



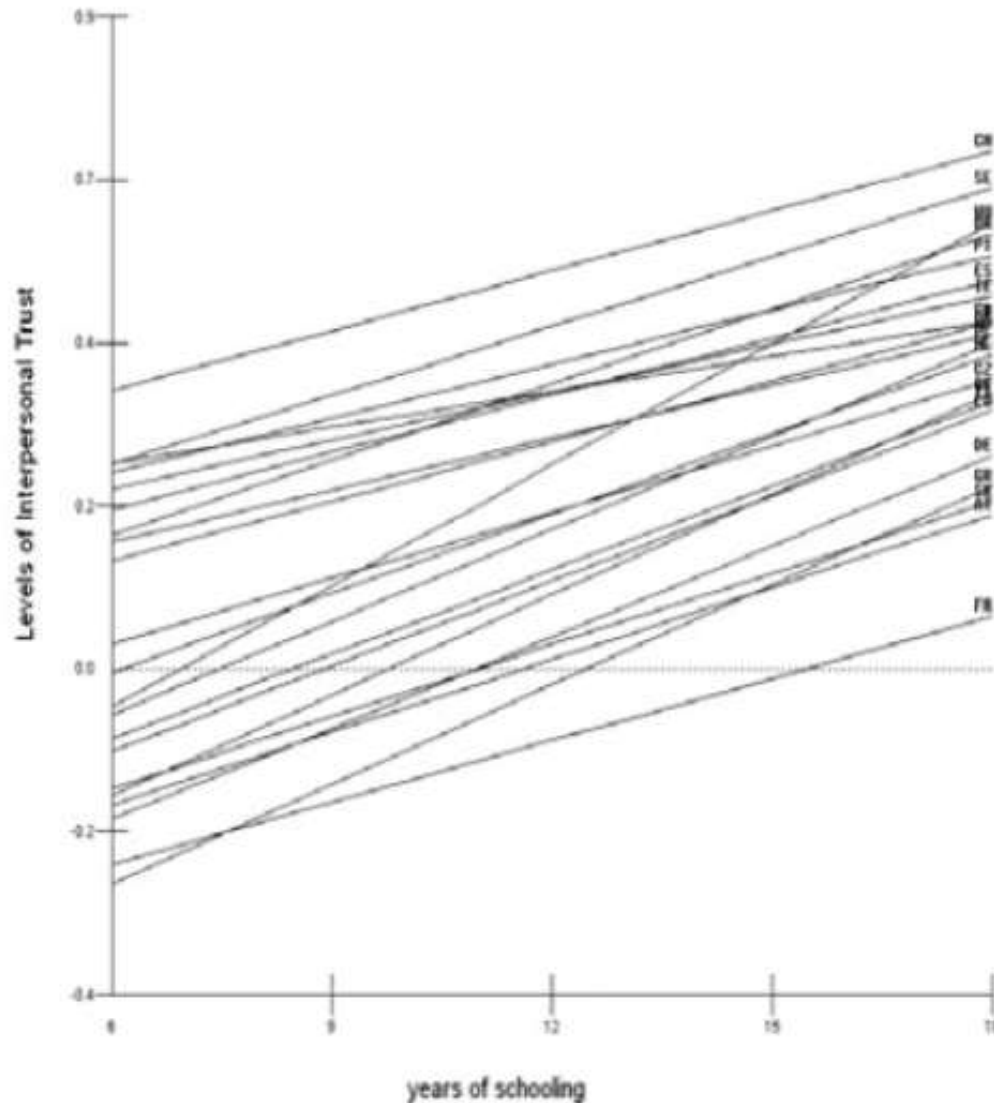
# Proportion of adults volunteering, by level of educational attainment (2008)







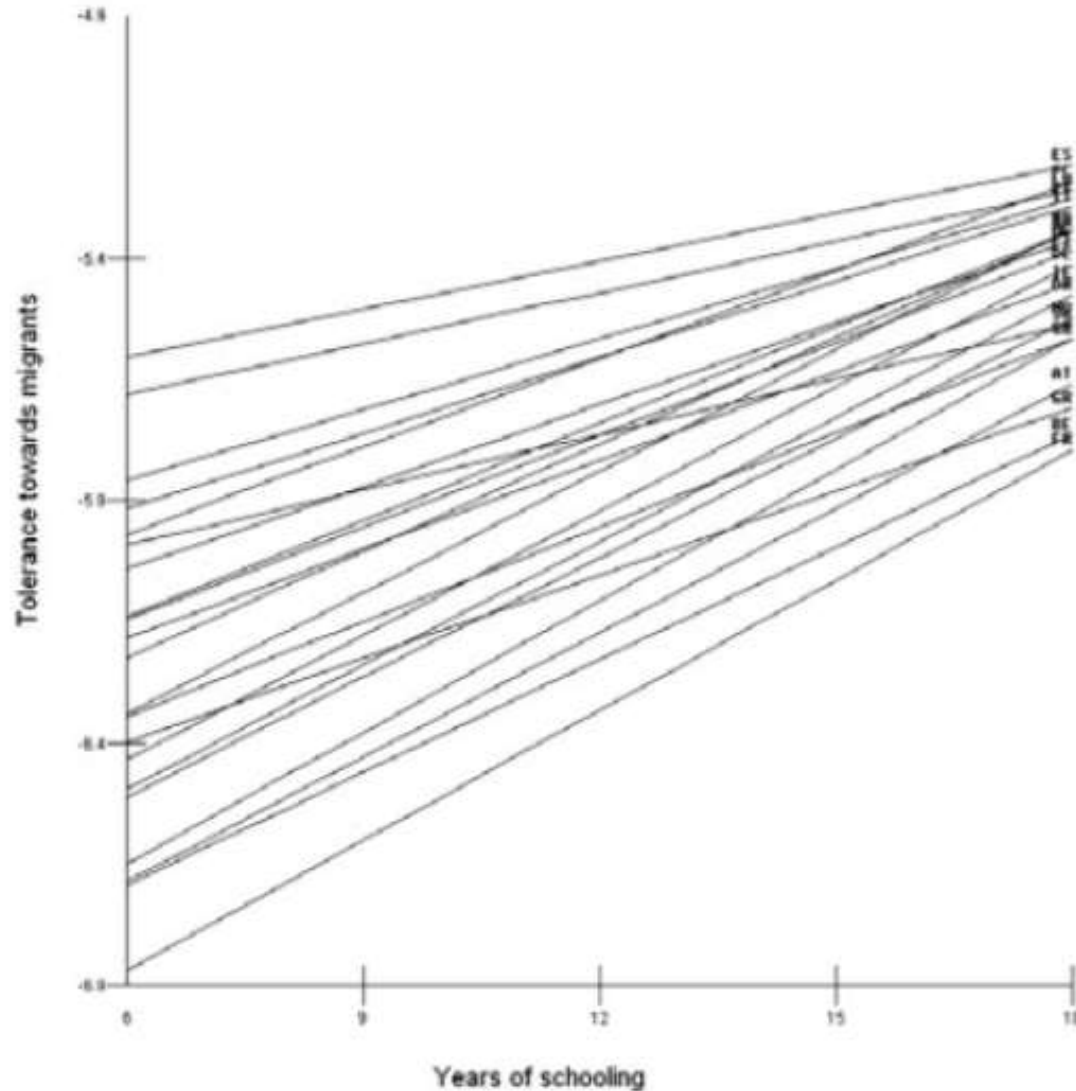
# Years of schooling and levels of interpersonal trust



Borgonovi, 2012



# Years of schooling and levels of tolerance towards migrants

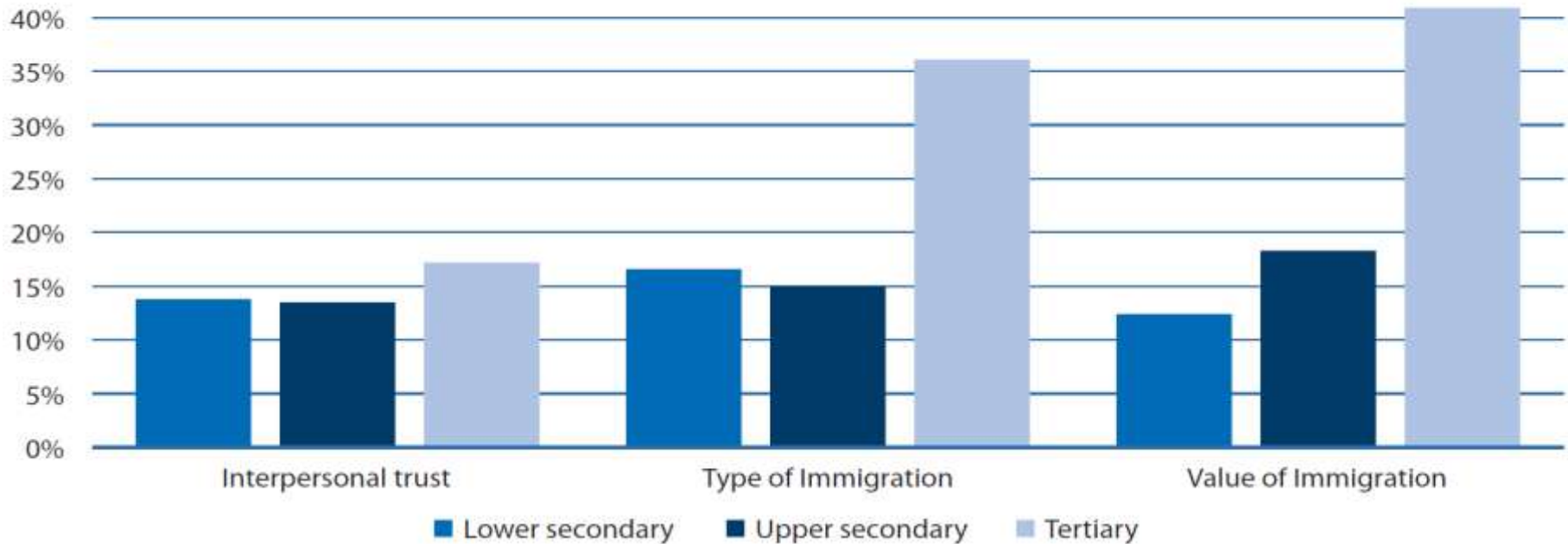


Borgonovi, 2012



# Education effects on trust and tolerance

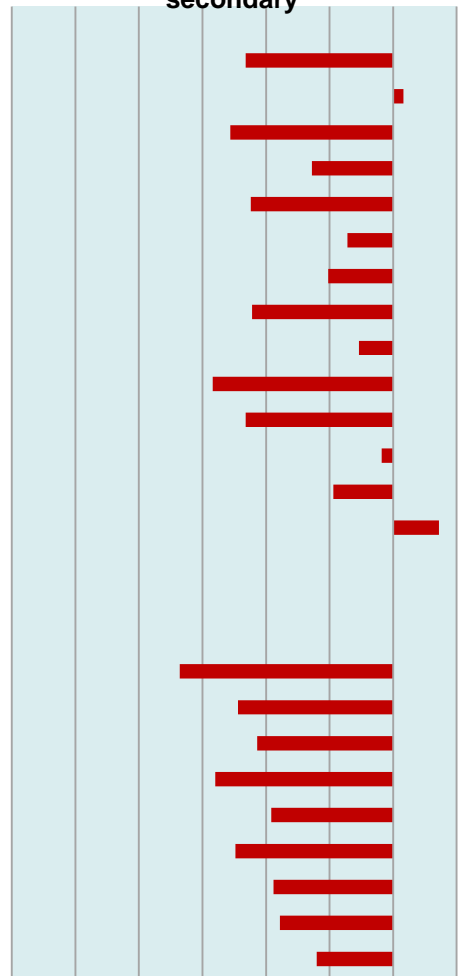
Figure 3.5c. **Marginal effects of education on interpersonal-trust and tolerance (Europe), 2002-06**



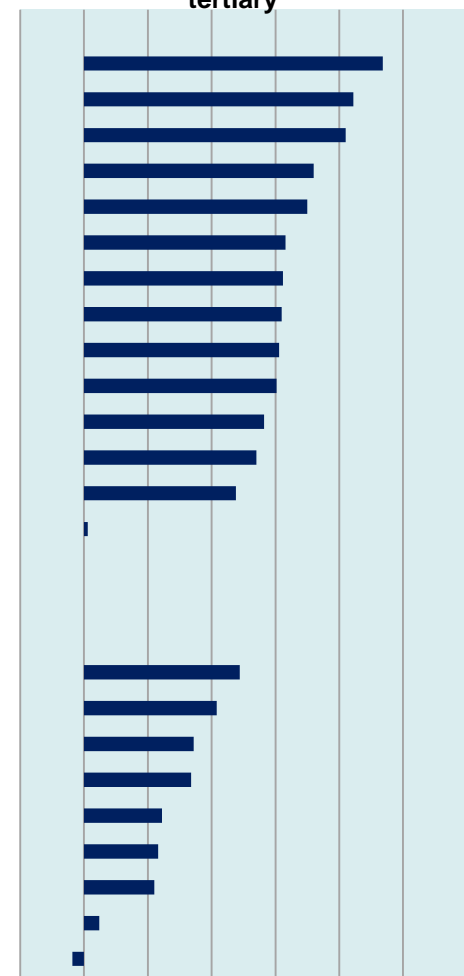


# Incremental differences in interpersonal trust associated with an increase in the level of educational attainment (2008)

From below upper secondary to upper secondary



From upper secondary to tertiary



% 30 25 20 15 10 5 0 -5

-5 0 5 10 15 20 25 30 %

1. Year of reference 2006.  
 2. Year of reference 2004.  
 Countries are grouped by those in which the incremental differences in interpersonal trust are higher at a higher level of education (Group 1) and others (Group 2). Countries are ranked in descending order of the incremental differences in interpersonal trust associated with a shift from upper secondary to tertiary education attainment.



# Education and measures of social capital

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- Levels of interpersonal trust and tolerance are strongly linked to educational attainment
- Individual's education explains 8% of cross-country differences in levels of interpersonal trust
- Extra year of schooling accounts for an increase in the level of interpersonal trust of 3 to 4% and an increase in tolerance of even 6%.
- But impact is not linear: different models of impact according to levels of education
- *What are the skills that specifically contribute to interpersonal trust and how can education develop them more effectively?*



# DISENTANGLING THE IMPACT OF EDUCATION: COGNITIVE AND NON-COGNITIVE SKILLS

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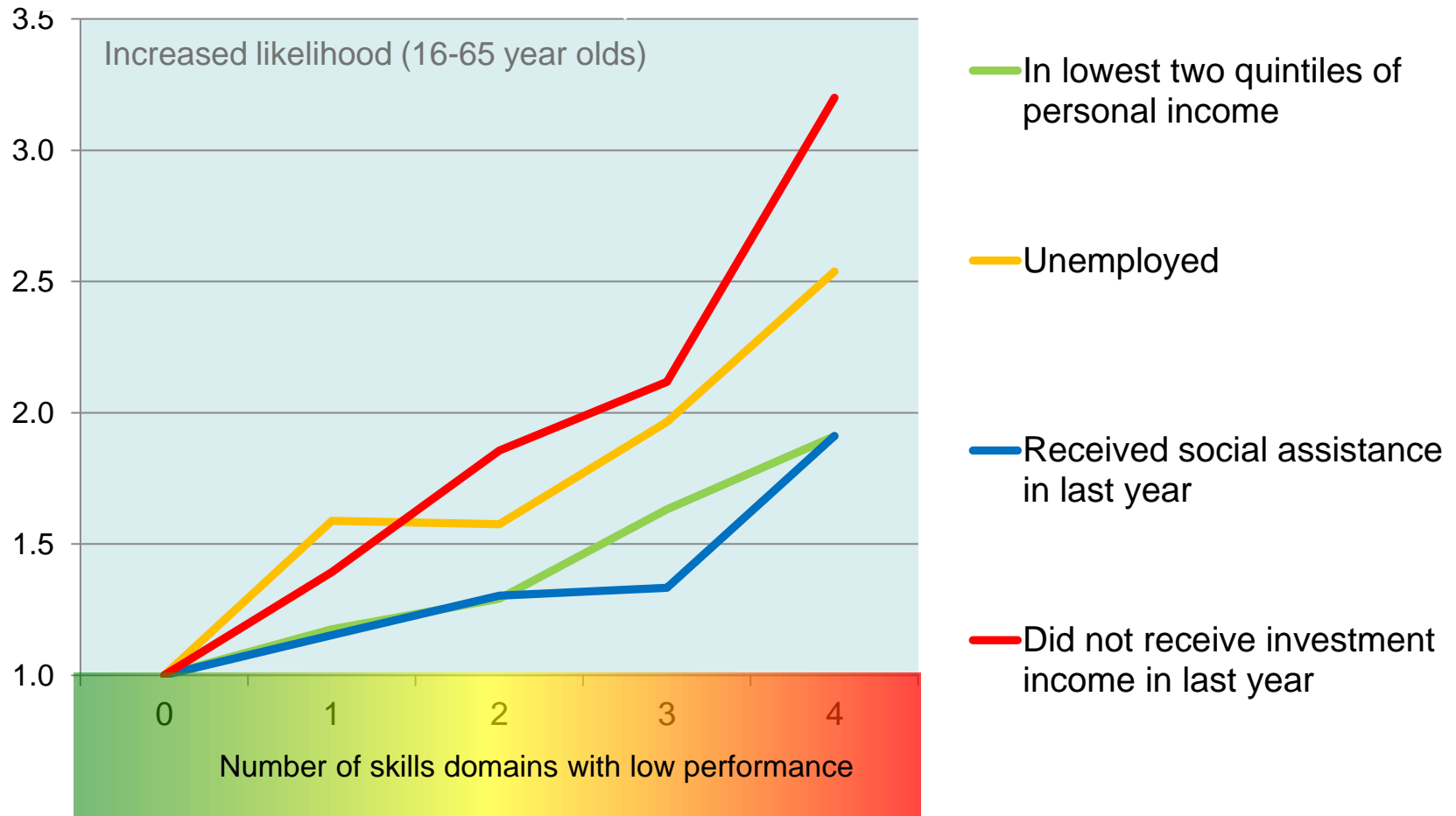
# Schooling and skills development

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- Education impacts on measures of social capital by fostering various sets of skills:
  - Cognitive skills
    - Basic foundations skills (literacy, numeracy, etc.)
    - Civic information
    - Critical thinking
  - Non-cognitive skills (social, emotional, etc.)
    - Self-efficacy, self-determination, sense of control
    - Social communication skills
    - Resilience, patience, consciousness, will power



# Cognitive skills matter for economic outcomes in life (PIAAC data)

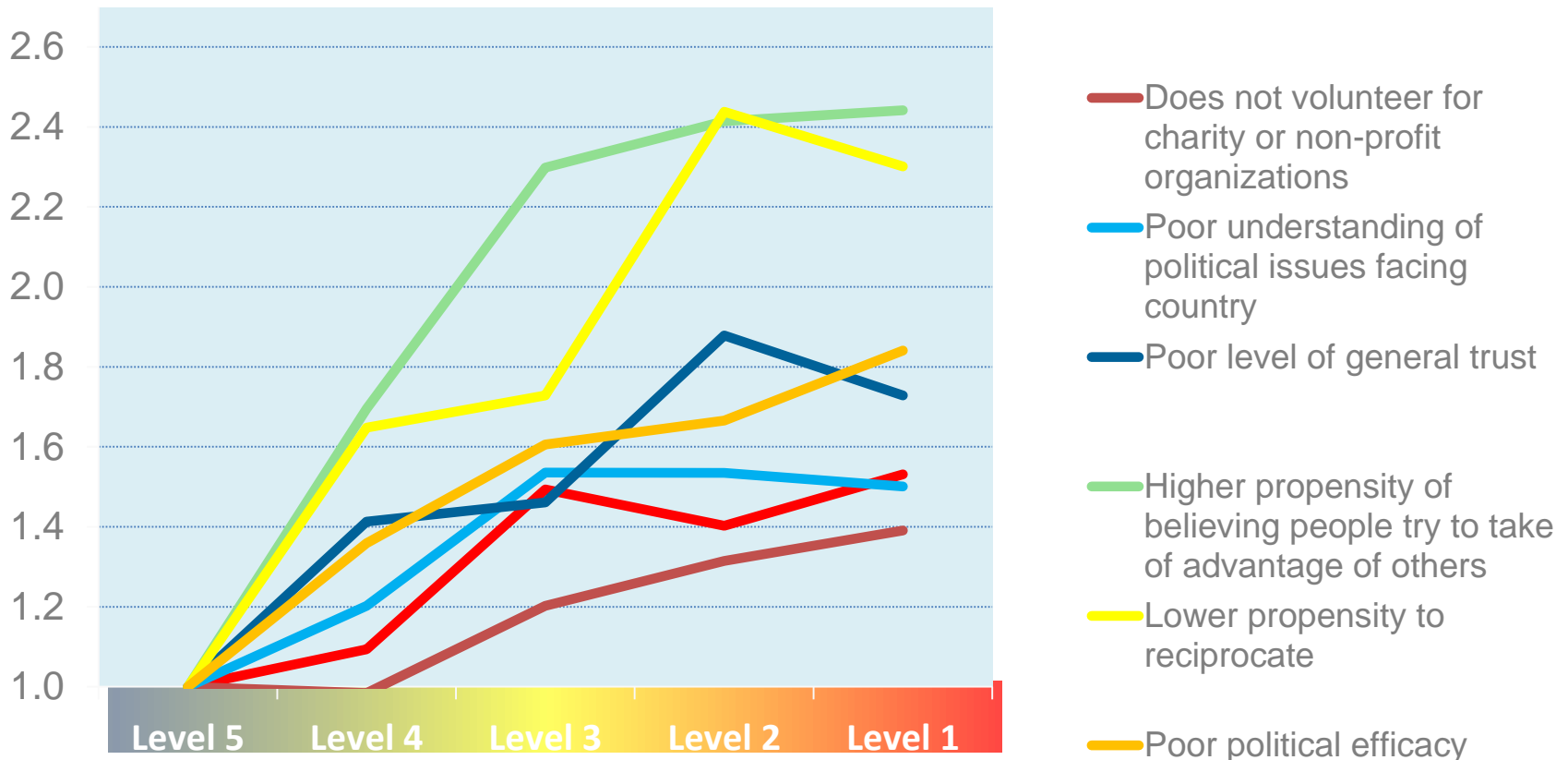






# Cognitive skills also matter for social outcomes in life (PIAAC data)

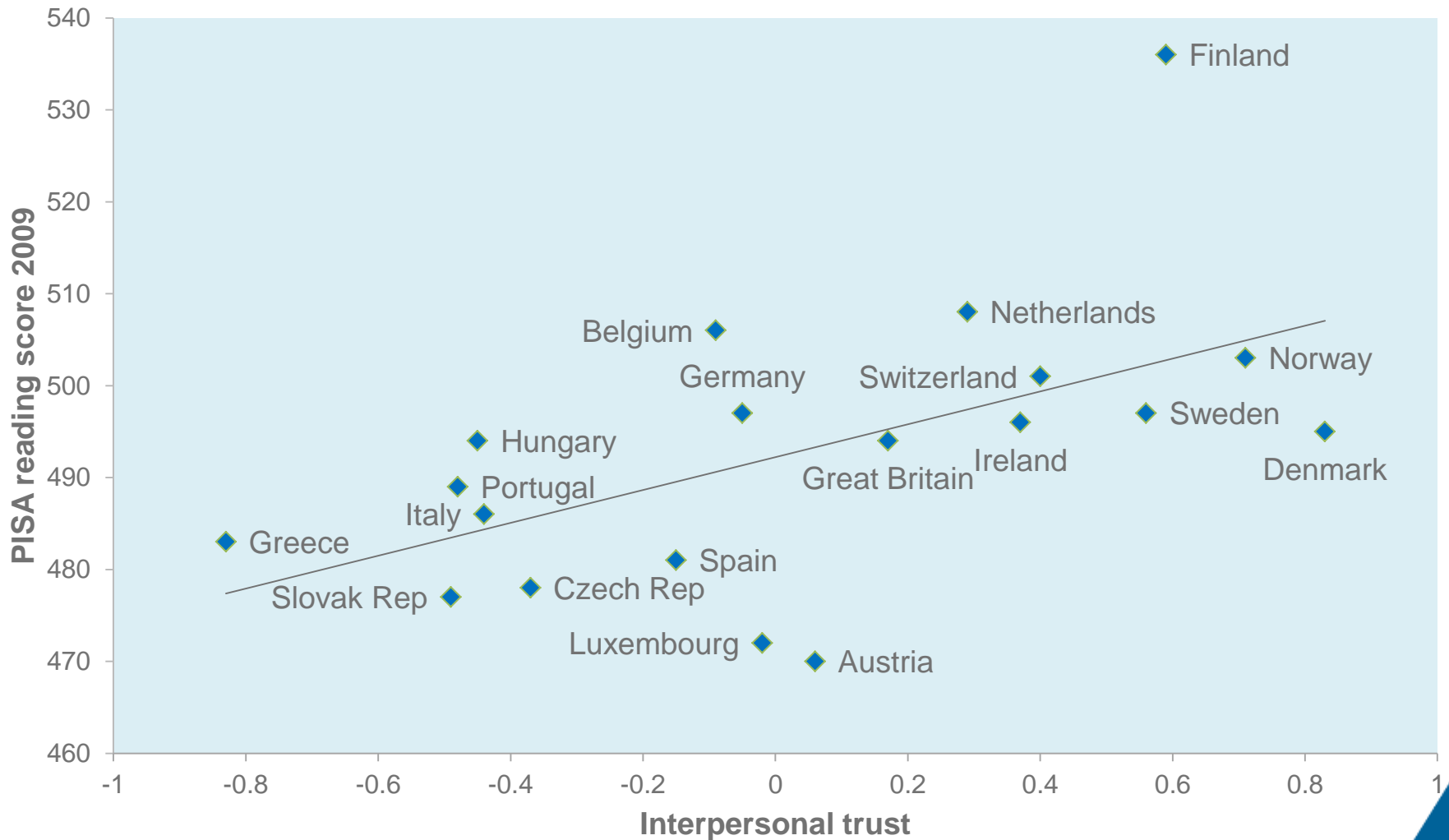
Odds ratios



Odds are adjusted for age, gender, and immigration status.

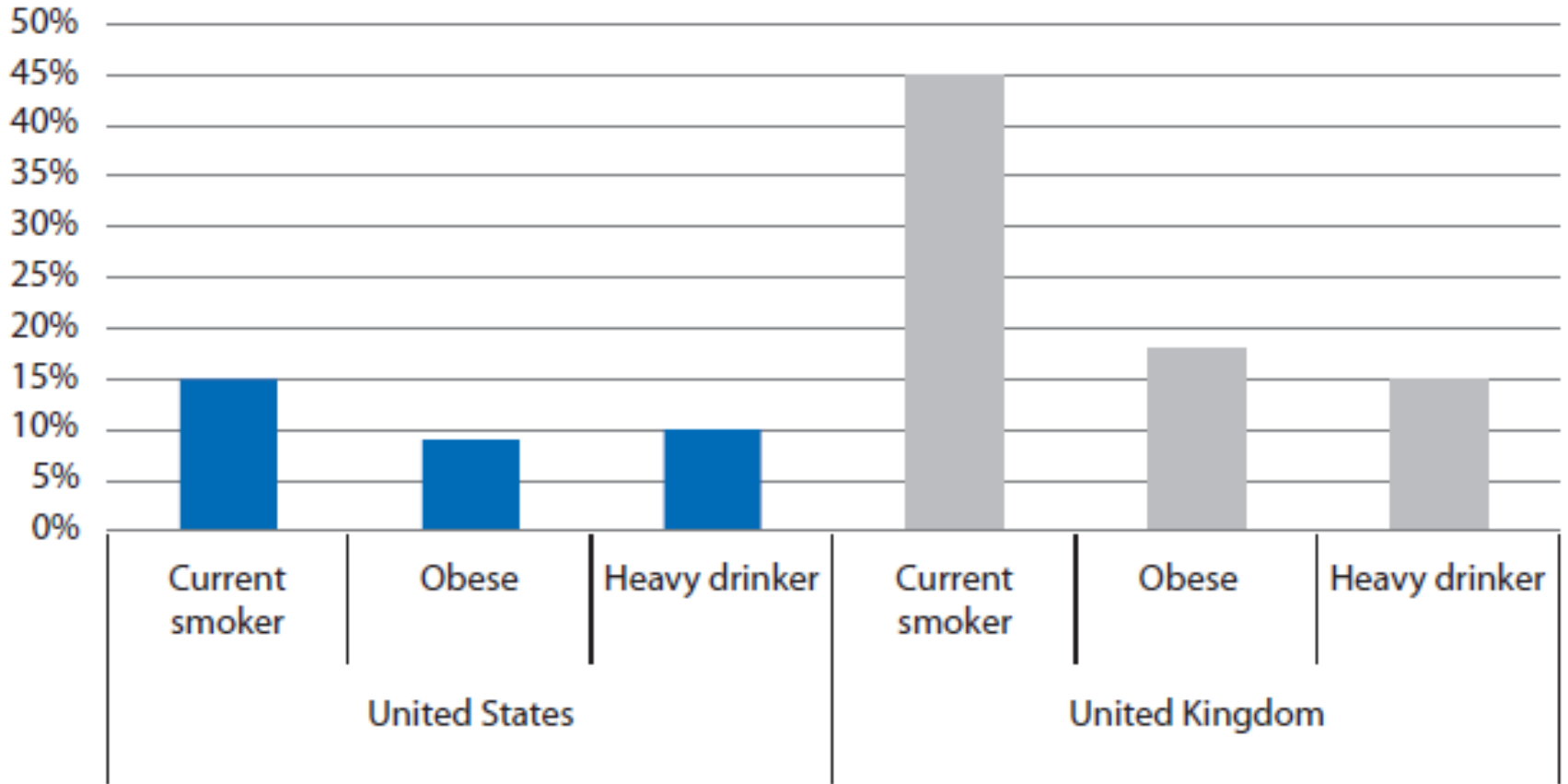


# Cognitive foundation skills are moderately associated with interpersonal trust





# Effect of cognitive skills on impact of education on health indicators





# OECD/CERI project on measuring education and skills for social progress

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## **Cognitive skills**

- *Mental capacity to acquire knowledge through thought, experience, and the senses*
- *Interpret, reflect and extrapolate based on the knowledge acquired*

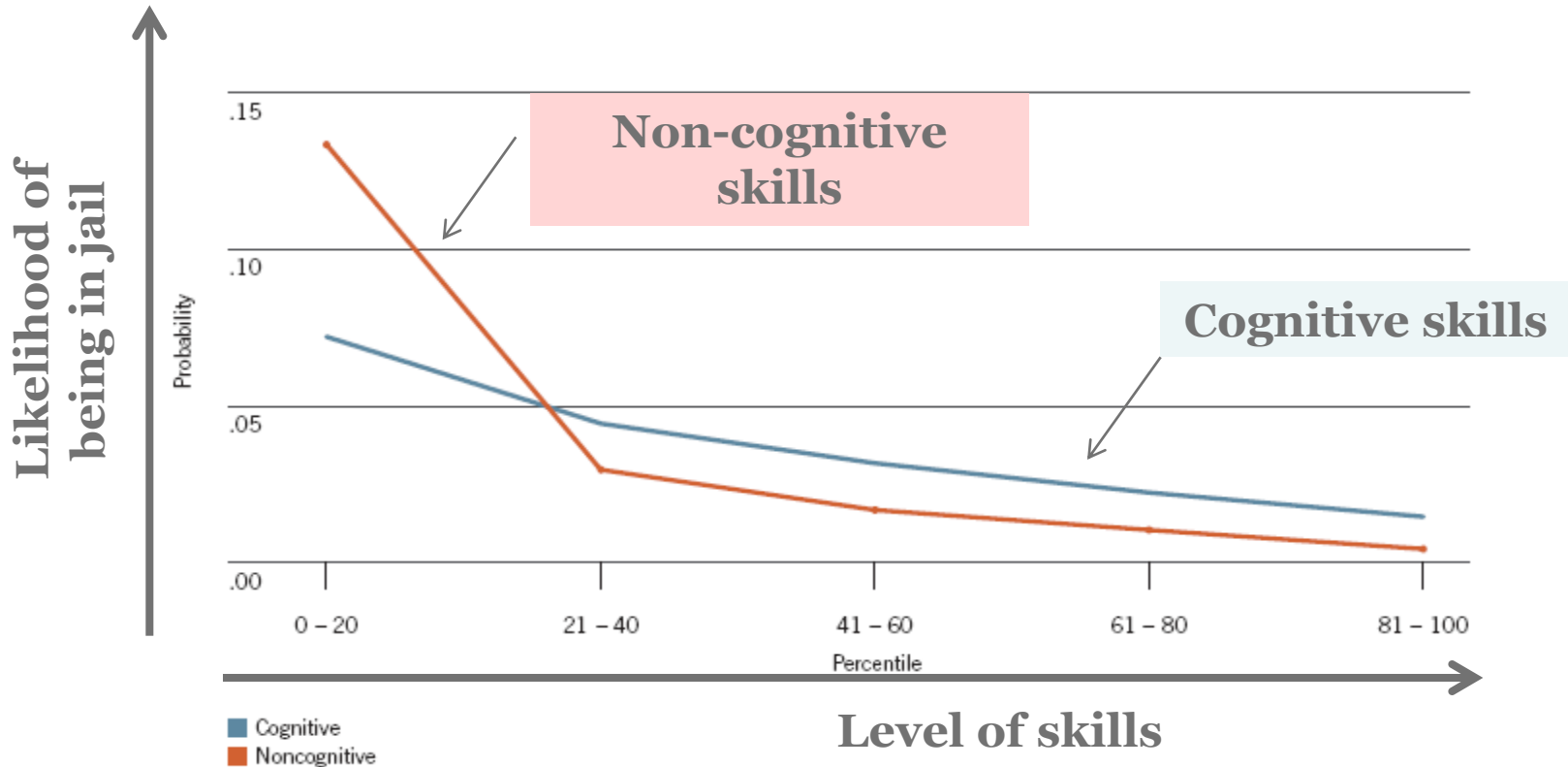
## **Non-cognitive skills**

- *Relatively enduring patterns of thoughts, feelings and behaviours that reflect the tendency to respond in certain ways under certain circumstances*



# Non-cognitive skills matter for crime

## *Ever Been in Jail by Age 30, By Ability (Males)*

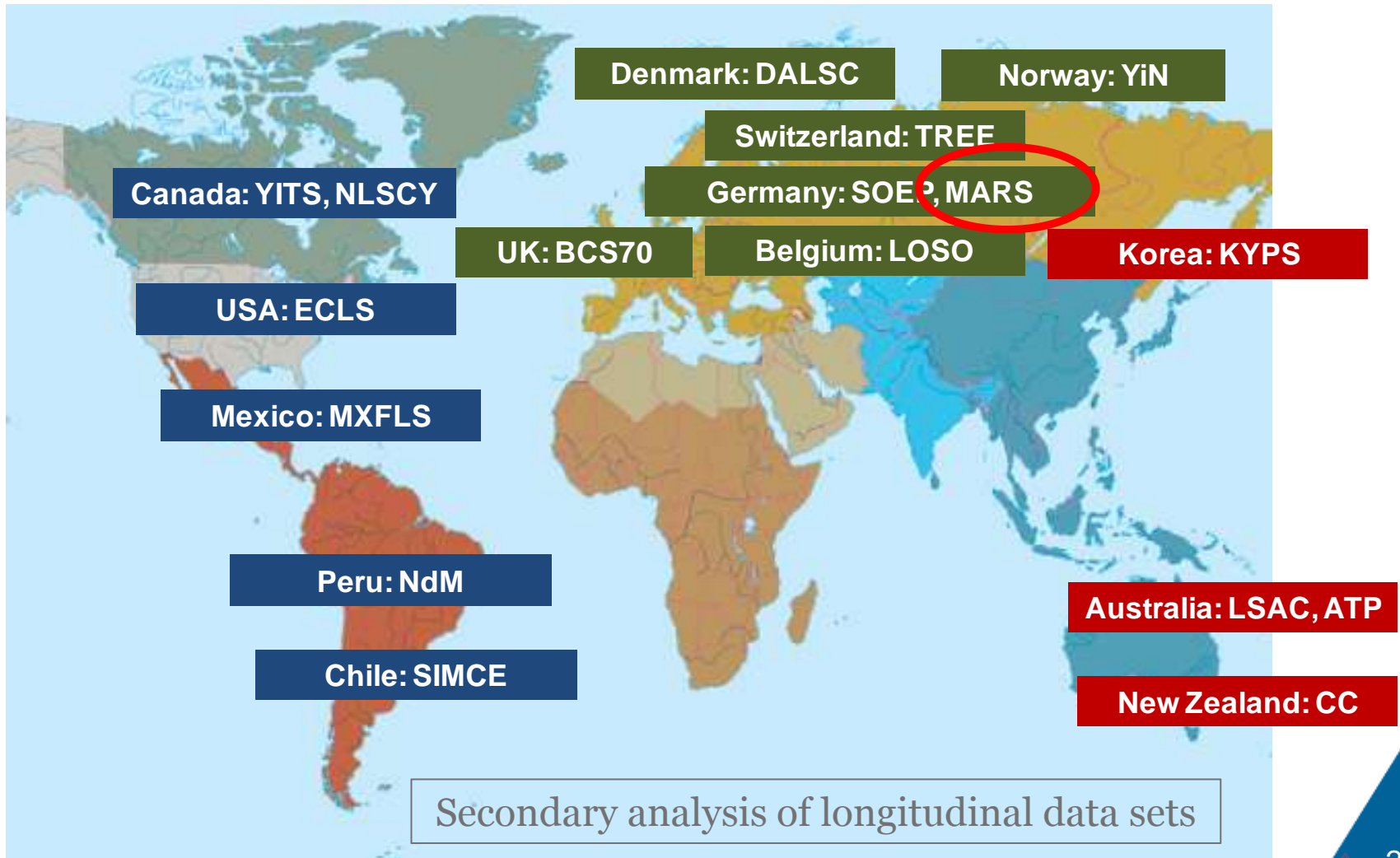


*Note: This figure plots the probability of a given behavior associated with moving up in one ability distribution for someone after integrating out the other distribution. For example, the lines with markers show the effect of increasing noncognitive ability after integrating the cognitive ability.*

Source: Heckman, Stixrud, and Urzua (2006).

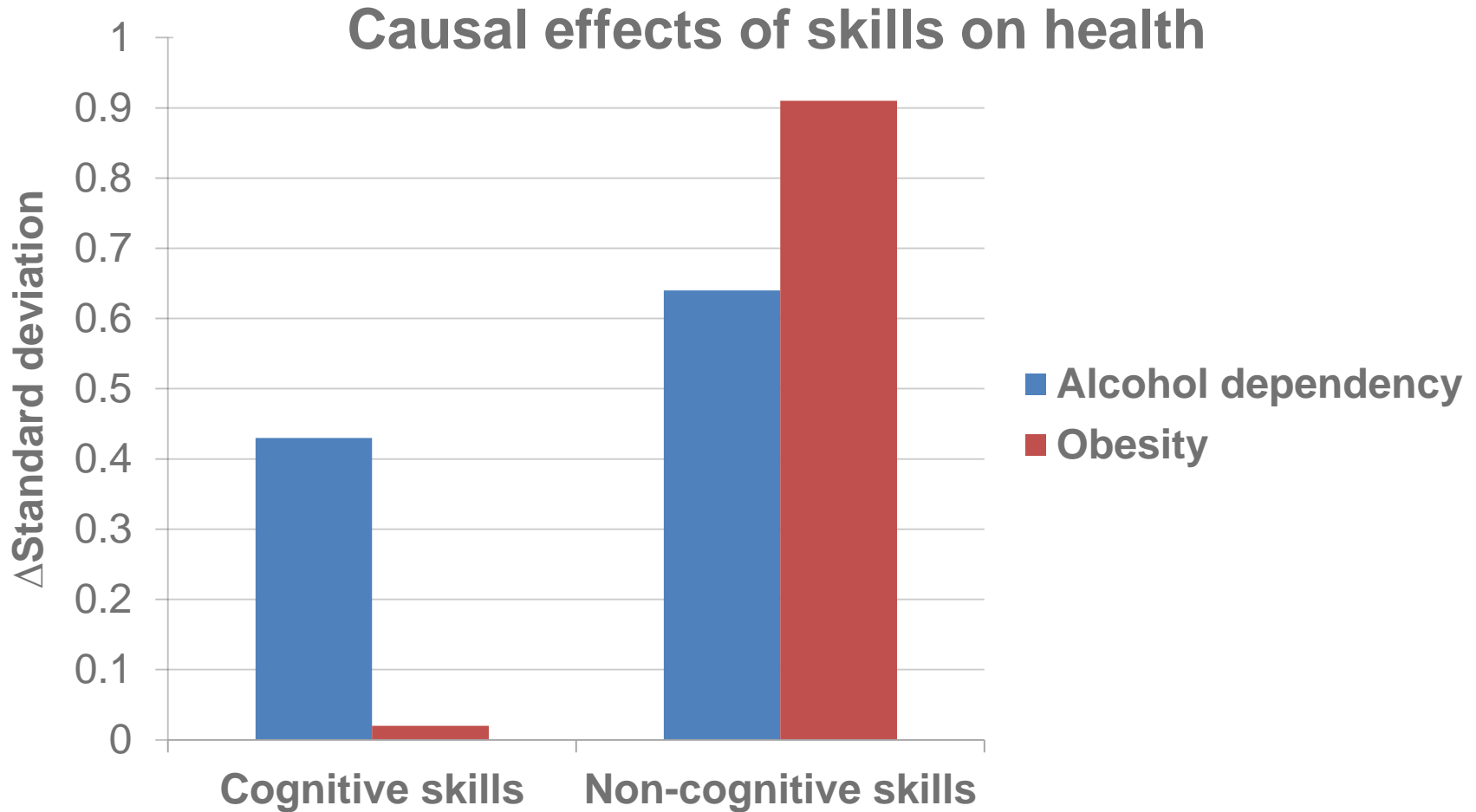


# OECD/CERI project on measuring education and skills for social progress





# Preliminary results - Germany



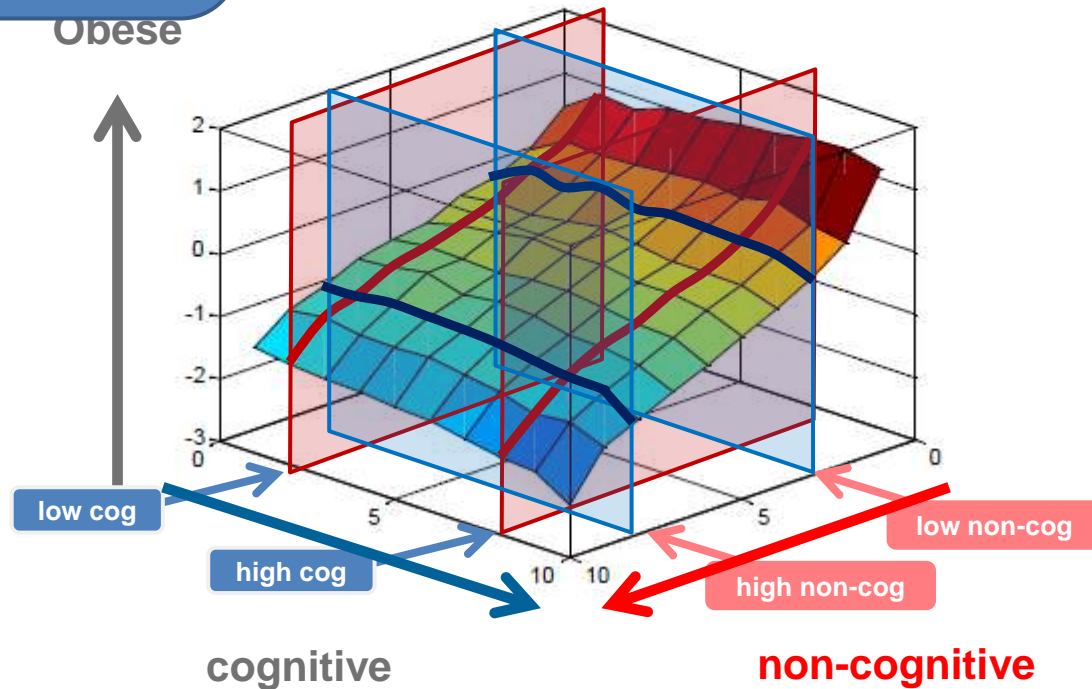
$\Delta$ standard deviation in outcomes due to  
 $\Delta$ standard deviation of skills



# Preliminary results - Germany

- Only non-cog skills matter for obesity.
- Non-cognitive skills matters for everybody

## Effects of skills on obesity





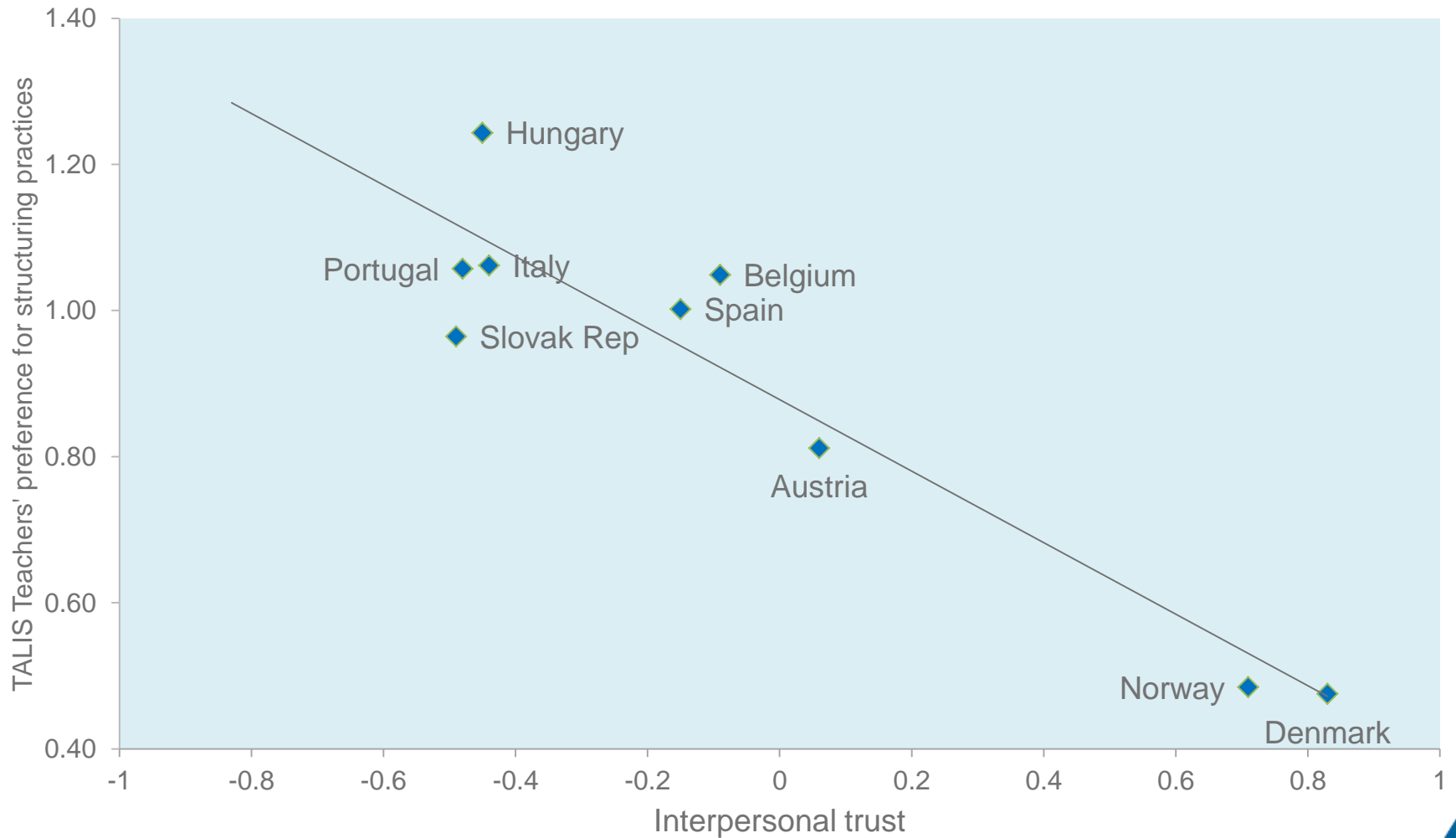


# HOW CAN EDUCATION IMPROVE FOSTERING SKILLS THAT MATTER FOR COLLABORATION AND TRUST?

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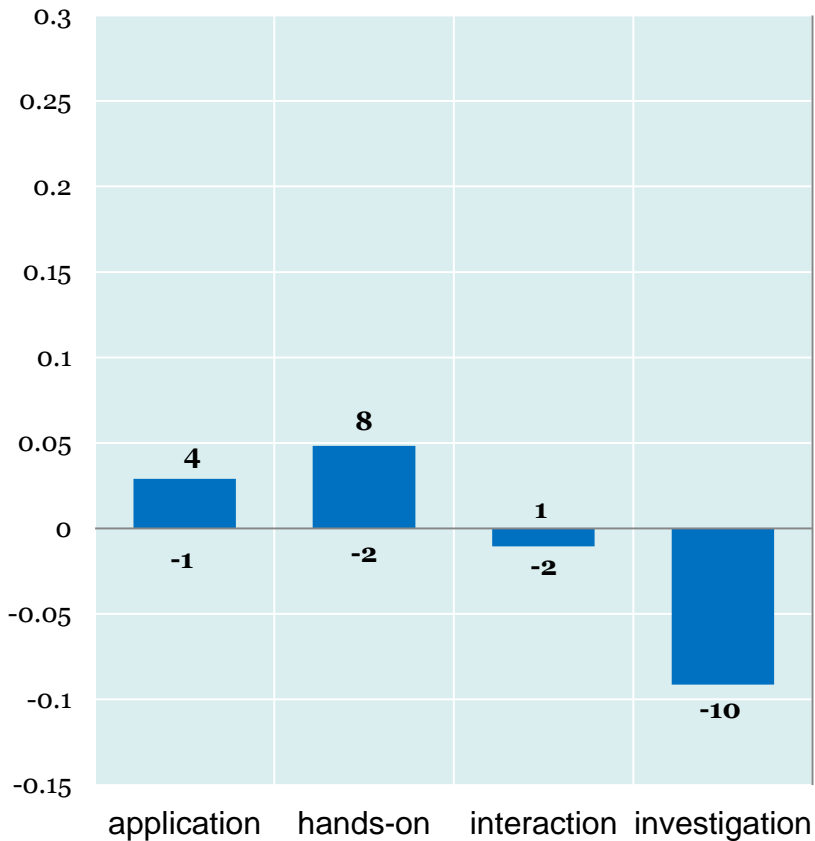
# Teaching matters...



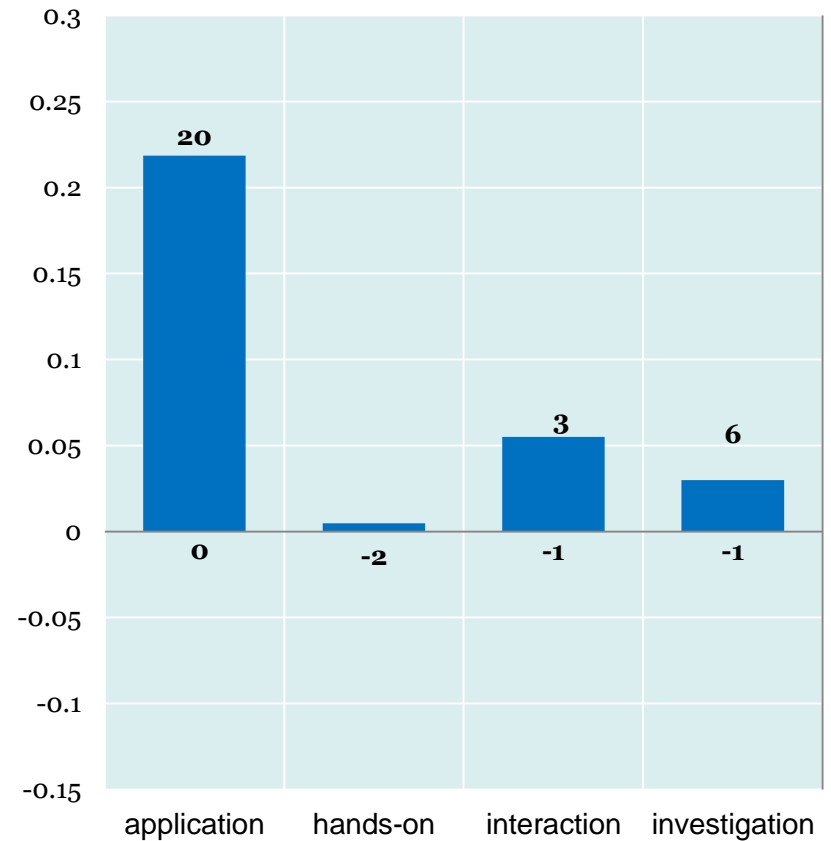


# Pedagogies matter...

## Science score



## Interest in Science Topics





# Effective pedagogies for trust and tolerance

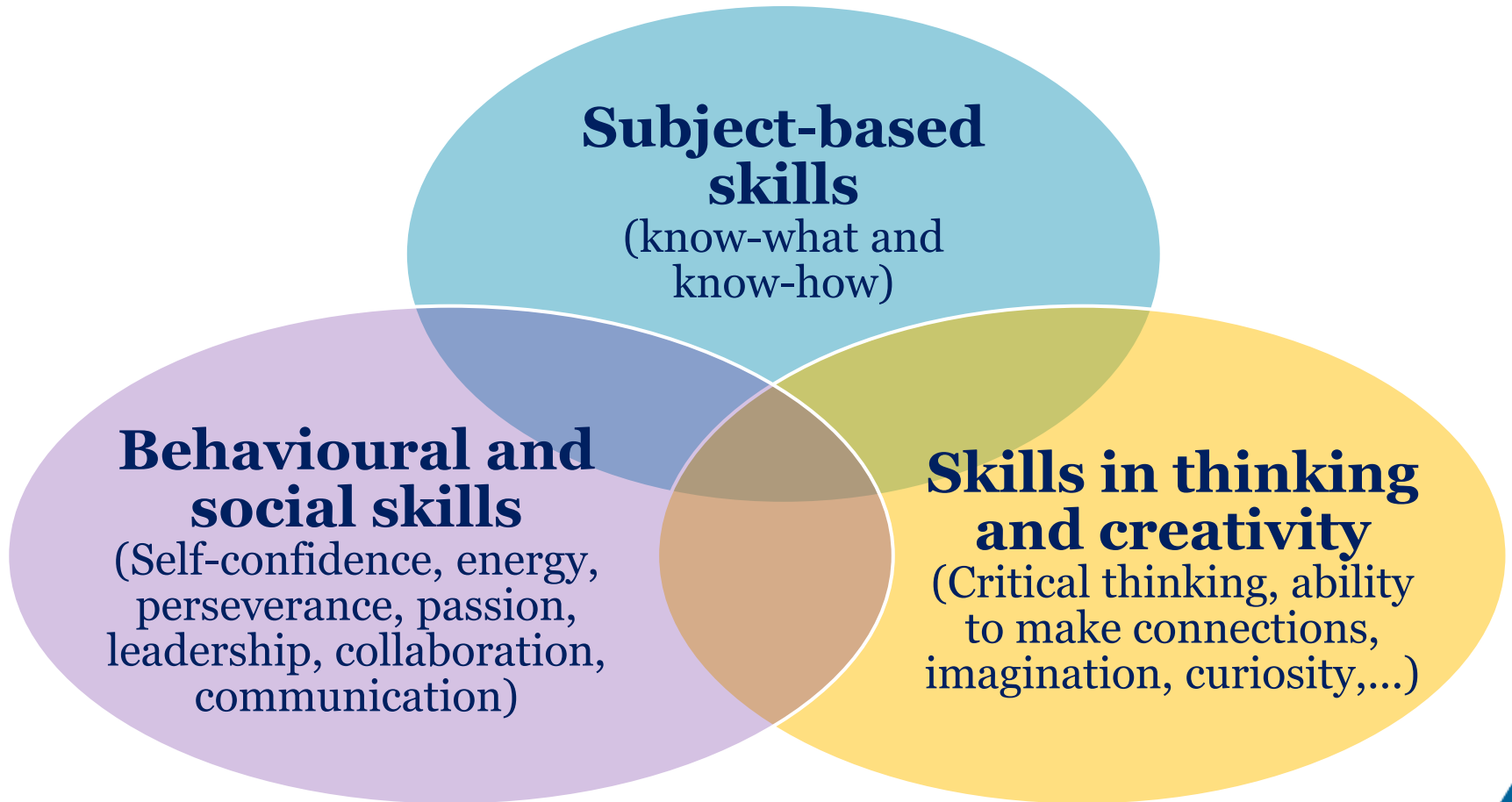
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- Early development of non-cognitive skills in early childhood education
- Raising foundation skills in school
- Continuous focus on relevant non-cognitive skills: resilience, self-control, consciousness, etc.
- Situated learning at school and community:
  - ‘Democracy in action’ on school level
  - Active engagement with ‘otherness’ and diversity
  - Real-world communication skills development
  - Fostering active civic participation
- Continuity of learning from school into families, local communities and workplaces



# 21<sup>st</sup> Century Skills

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**Thank you !**

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