

# Are skill deficits always bad?

Towards a learning perspective on skill mismatches

Rolf van der Velden and Dieter Verhaest



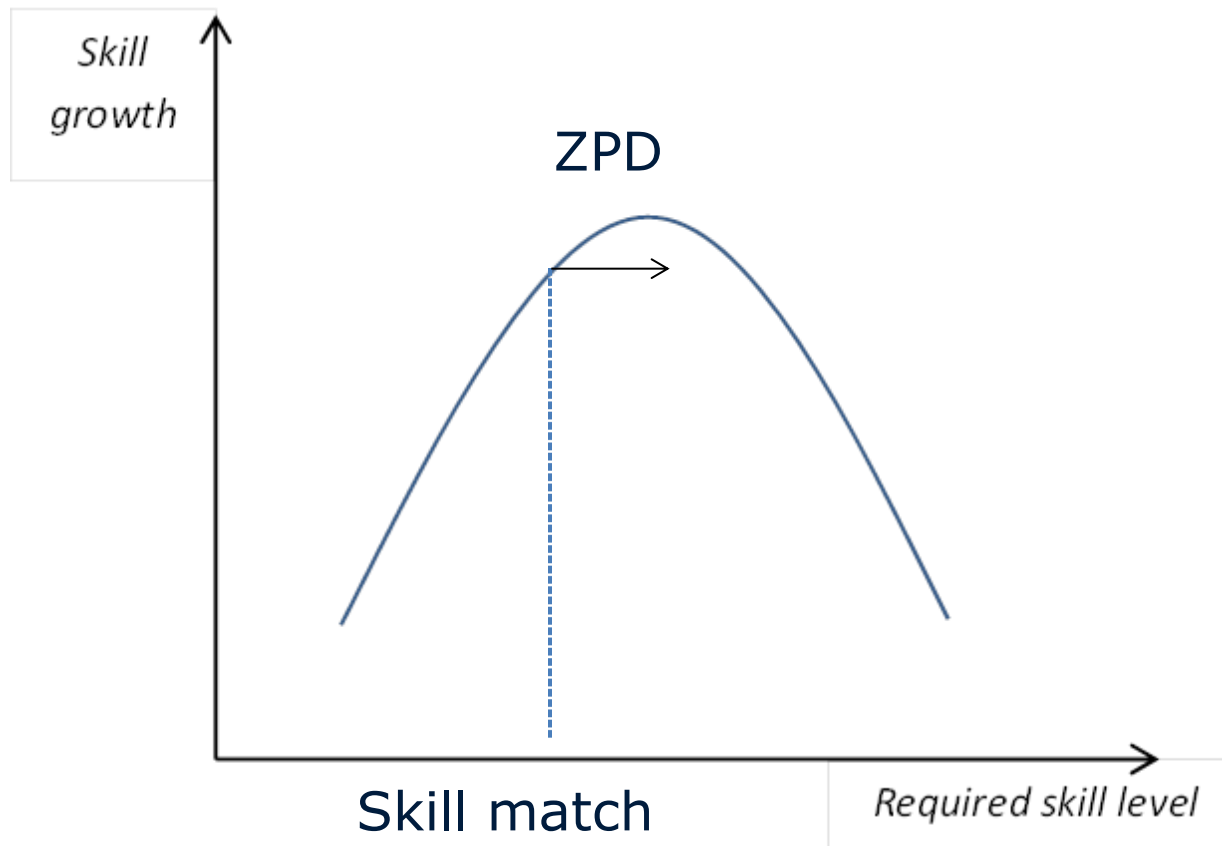
# The problem

- Strong assumption in theory and policy documents that all mismatch is costly
- Clear evidence for overeducated/overskilled:
  - lower wage
  - lower job satisfaction
- Less clear for undereducated/underskilled:
  - no strong effect on wage
  - even positive effect on job satisfaction
- Need a different perspective for the situation of skill deficits

# Towards a learning perspective

- How does skill mismatch relate to learning?
- Overskilled: use-it-or-lose-it
- Underskilled: intellectual challenge
- Russian learning psychologist Vygotski: “Zone of proximal development” (ZPD)
- Main point: some skill deficit is good from a learning point of view: more skill growth and more ‘spontaneous learning’

# Zone of proximal development



# What is needed?

- Core question: what is the optimal learning environment and how is that related to skill mismatch?
- Need good data on skill mismatch and in particular the 'extent' of underskilling (difference between small and large skill deficit)
- Need data on skill growth and 'spontaneous learning'

# Hypotheses

- Workers who start their job with a small skill deficit will:
  1. Show a higher skill growth
  2. Engage more in 'spontaneous' learning activities
  3. Show a higher job satisfaction
- Compared to:
  - Workers with a strong skill deficit
  - Workers with a matching job
  - Workers with a skill surplus

# Data: independent variable

- EU Skills Survey
- Analyses on both full sample and restricted sample: those < 1 year in the job (purest effects); only latter is shown
- Independent variable: “When you started your job with your current employer, overall, how would you best describe your skills in relation to what was required to do your job at that time?” with answers ranging from 0 (“My skills were a lot lower than required”) to 10 (“My skills were a lot higher than required”) and 5 denoting a perfect match
- 26% report a skill surplus and 23% a skill deficit

# Data: dependent variables

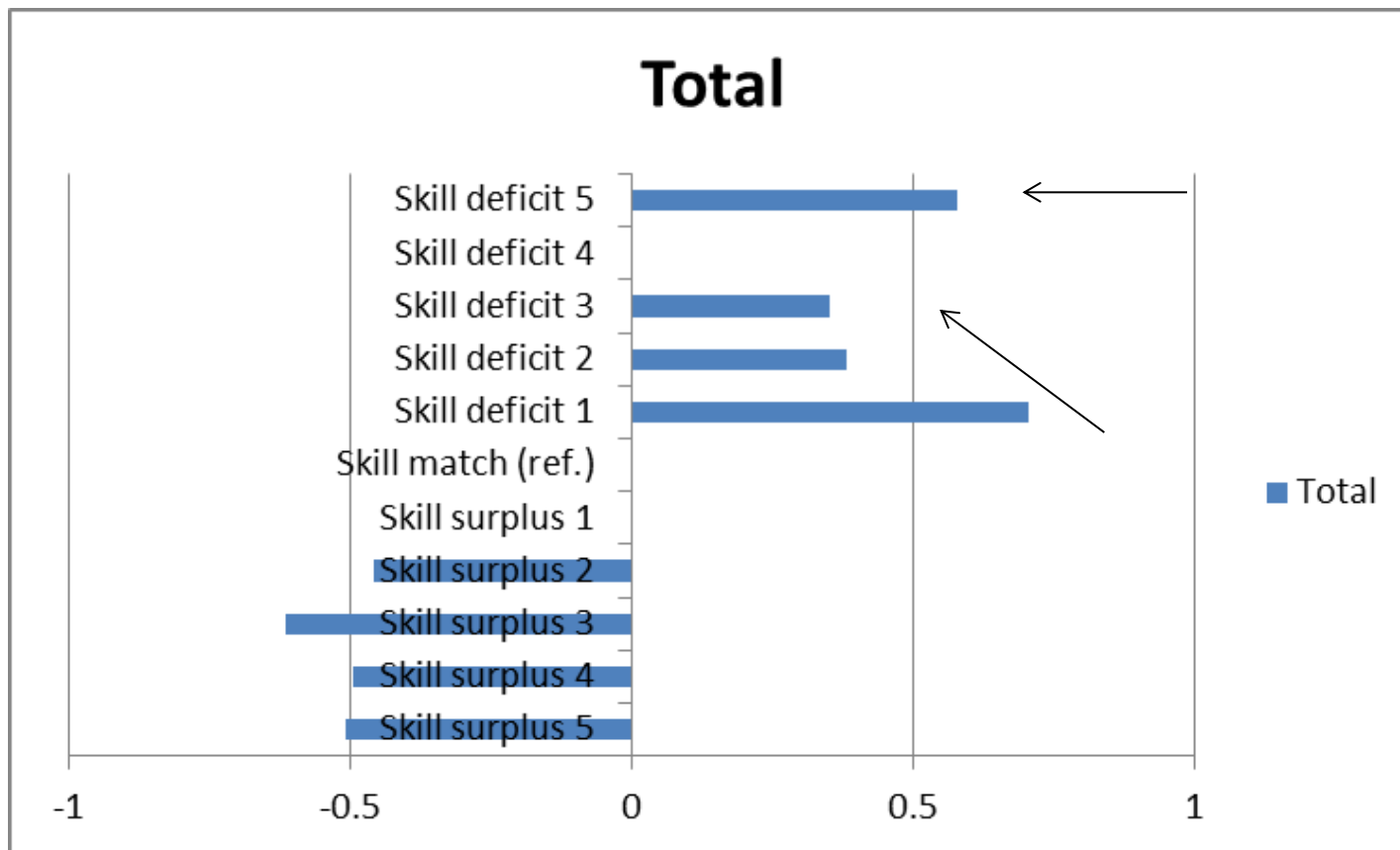
- Skill change: “Compared to when you started your job with your current employer, would you say your skills have now improved, worsened or stayed the same?” with 0 “My skills have worsened a lot”, 5 “My skills have stayed the same” and 10 “My skills have improved a lot”
- Participation in learning activities:
  - training courses; supervisor training; *learning by interaction, learning by doing and learning by yourself*
  - last 3 spontaneous learning activities
- Job satisfaction: “On a scale from 0 to 10 ...., how satisfied are you with your job?” with 0 (very dissatisfied) – 10 (very satisfied)



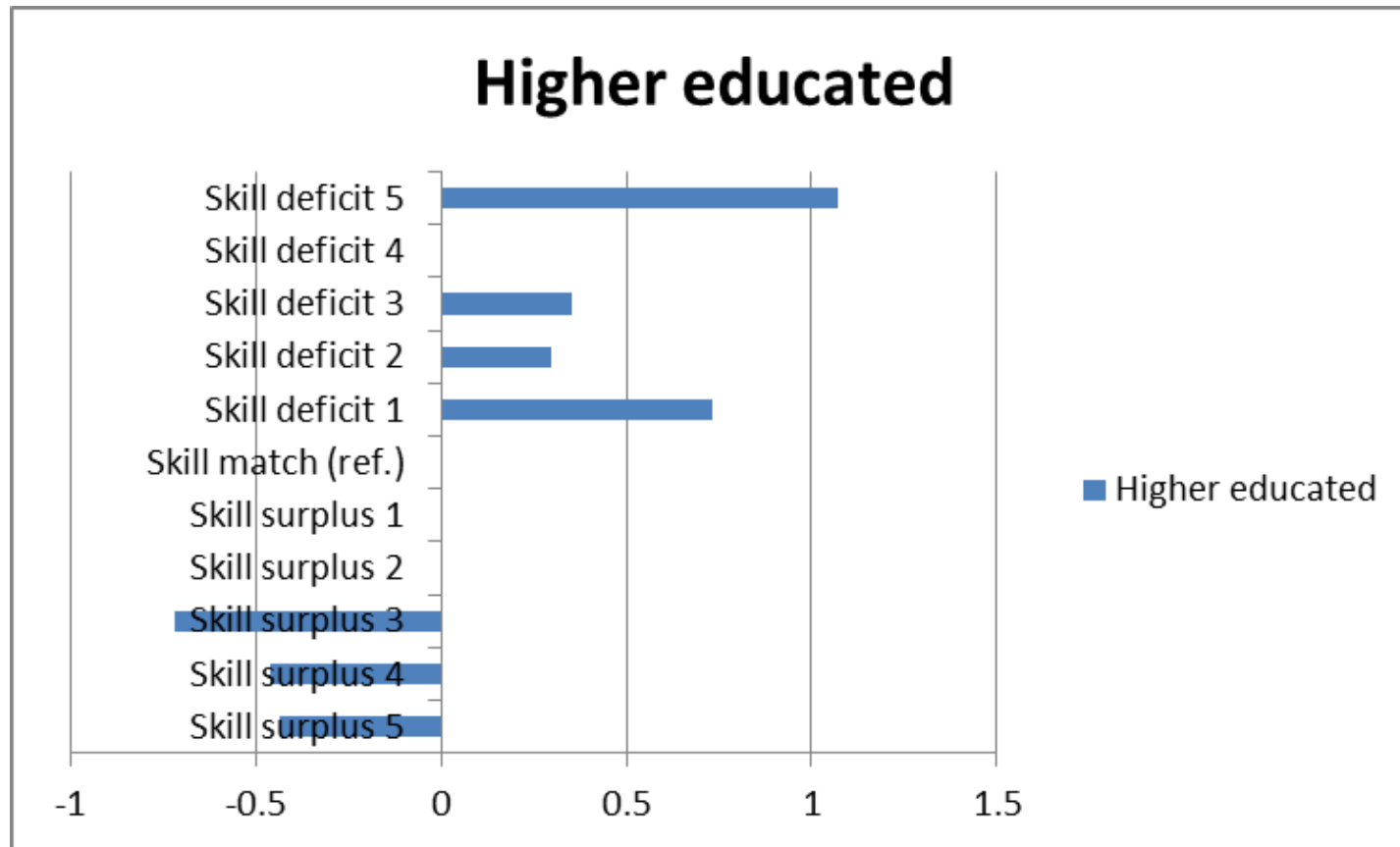
# Method

- Logistic/OLS regression
- Controls include:
  - education, age, gender, country,
  - time elapsed since start current employer (linear and squared),
  - changes in variety of tasks + changes in difficulty of the tasks since start job (both linear and squared),
  - promotion to a higher level position, movement to a different department, change in tasks and responsibilities without promotion or department and movement to a lower level position since start job

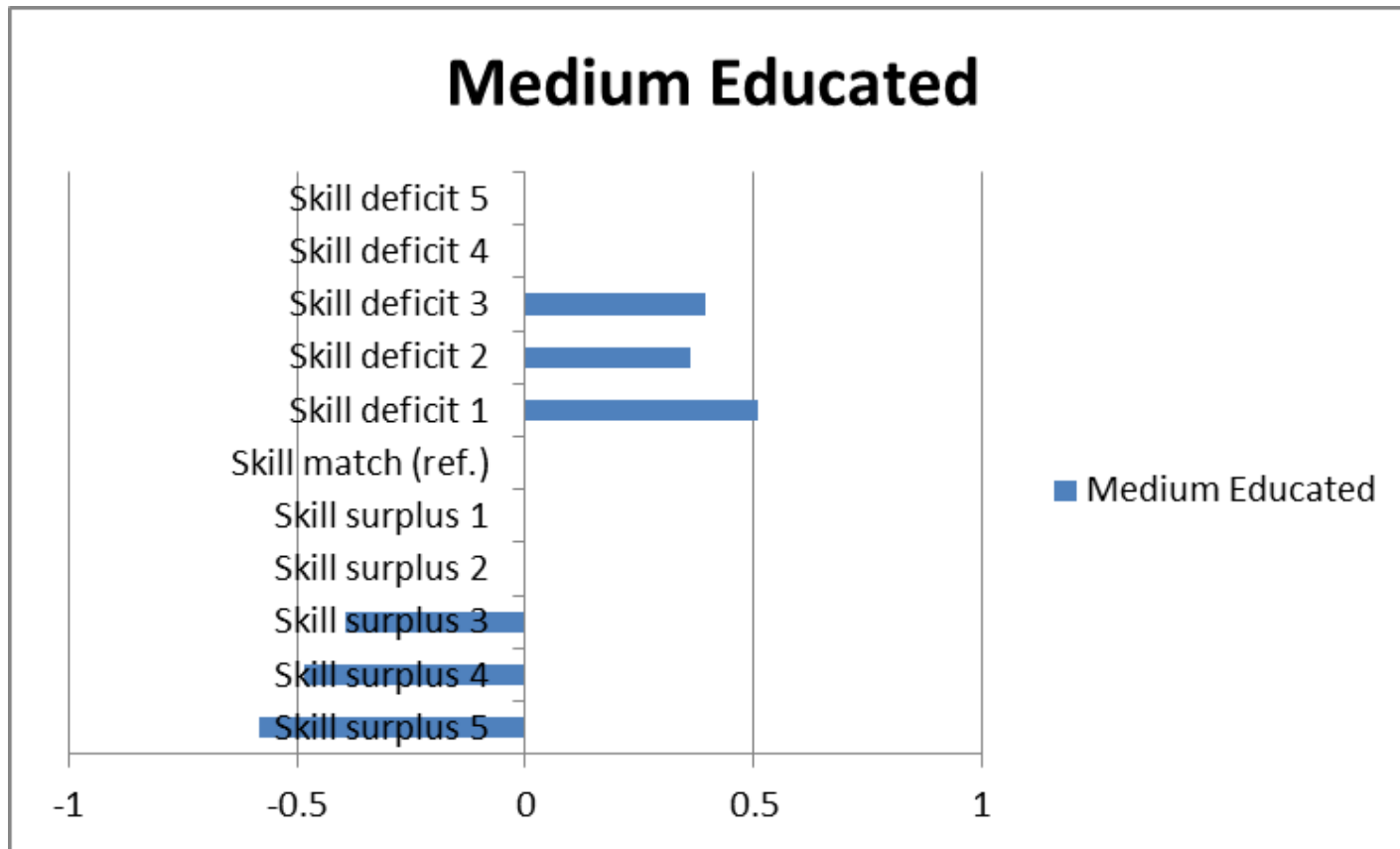
# Skill growth: total group



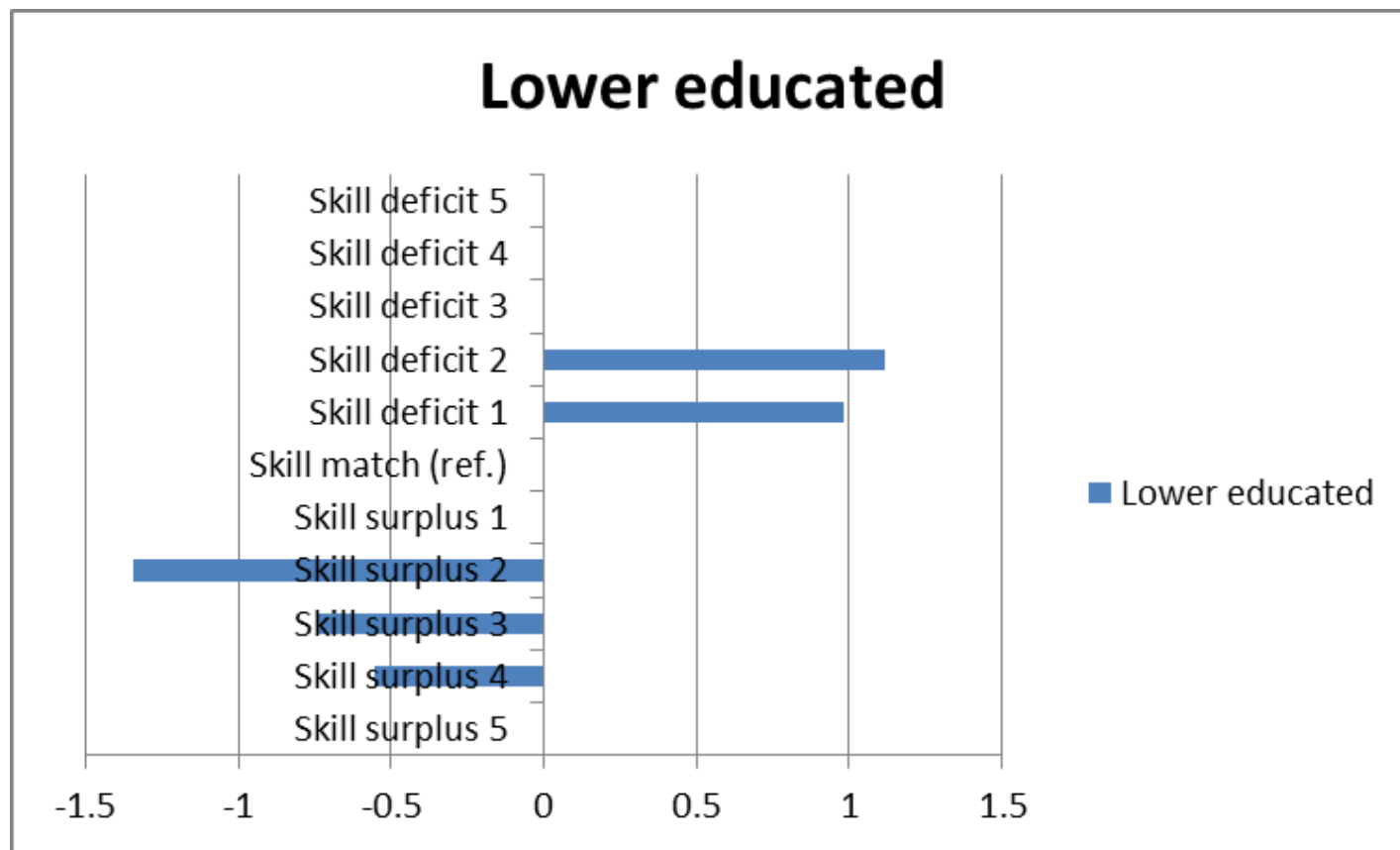
# Skill growth: higher educated



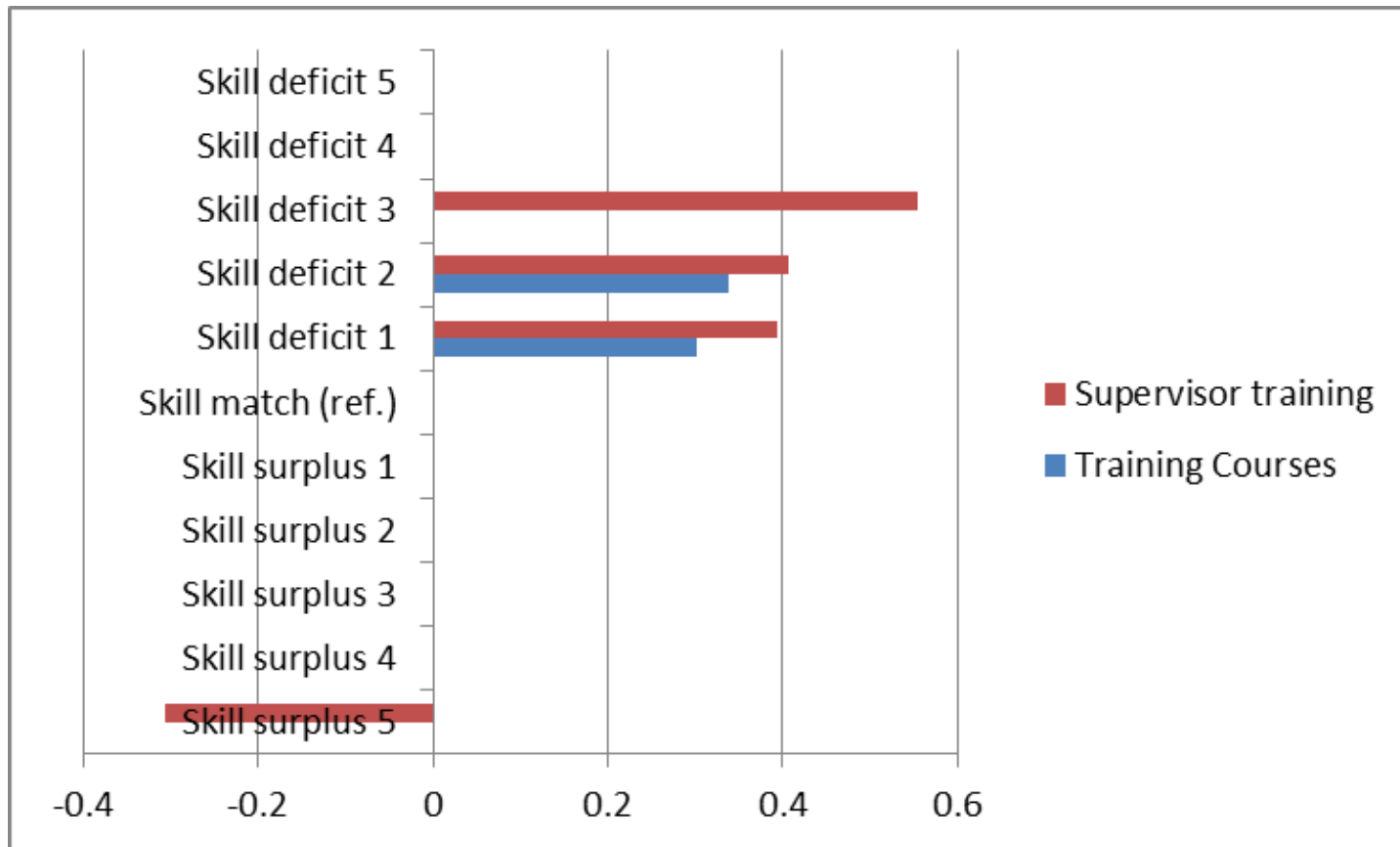
# Skill growth: medium educated



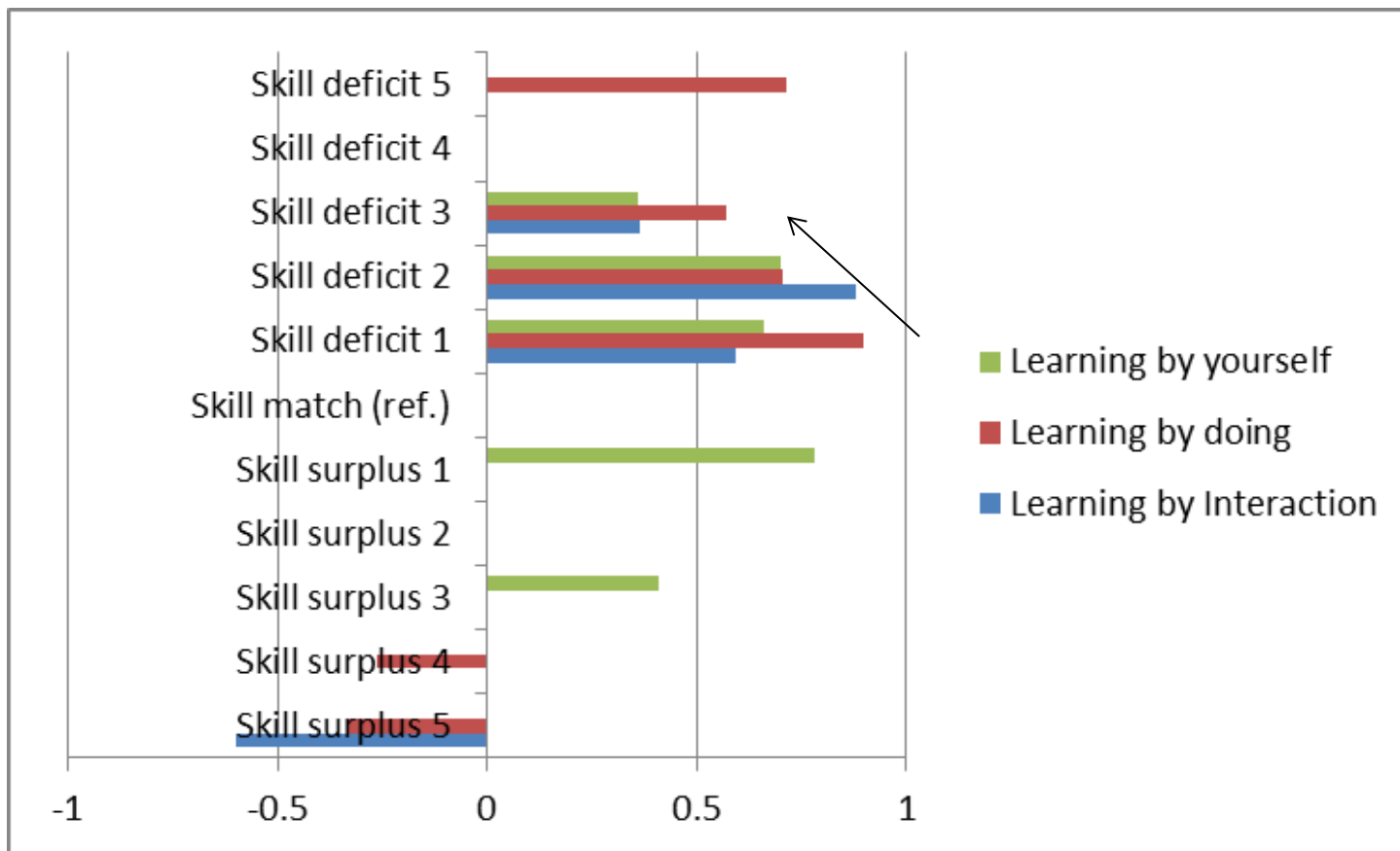
# Skill growth: lower educated



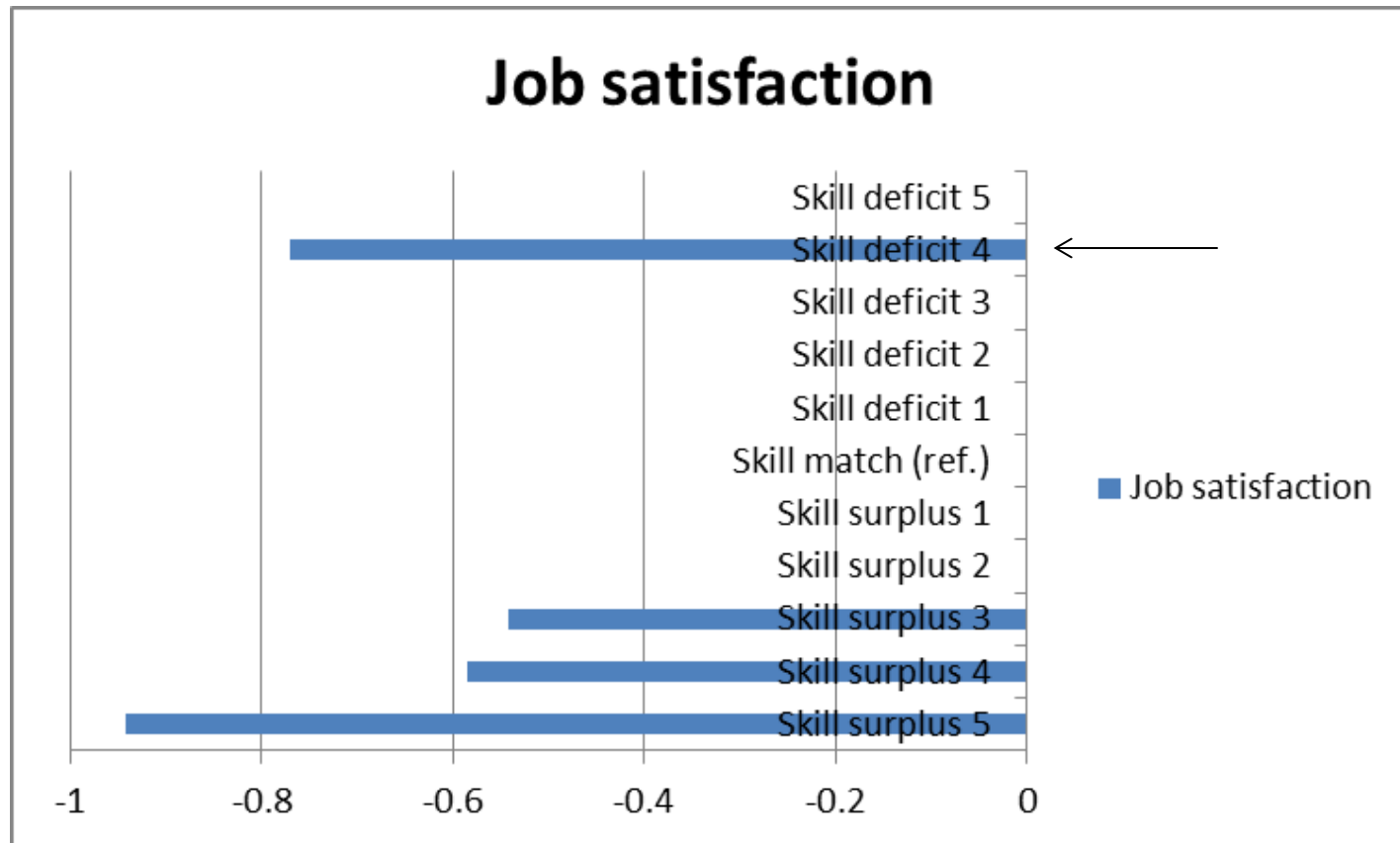
# Non-spontaneous learning activities



# Spontaneous learning activities



# Job satisfaction





# Conclusions (1)

- 23% of workers report some skill deficit at the start of their job, but why would employers hire such workers?
- Skill deficits are more difficult to understand than skill surpluses: less clear effect on wages and sometimes positive effect on job satisfaction
- So not all skill mismatch is bad: need a learning perspective on skill mismatch:
- “Zone of proximal development”: some skill deficit (but not too much!) is optimal for learning

## Conclusions (2)

- Use CEDEFOP Skills Survey to test effects on:
  - skill growth since start job
  - engagement in spontaneous learning activities
  - job satisfaction
- Positive effect of some skill deficit on skill growth (at least for lower and medium educated)
- Positive effect of some skill deficit for engagement in spontaneous learning activities
- No effect on job satisfaction, except negative effect in case of a large skill deficit (stress)

# Implications

- Need to rethink the mismatch notion: a match is good but some skill deficit is better
- Maybe easier to achieve for young new hires, but challenge is how to increase the learning potential of a job for older people
- Another challenge: the rise in enrollment of higher education is supposed to be good for innovation and will lead to an upward change in skill requirements; but how do you keep these jobs challenging for the overskilled?