

# NEET status and early versus later skills among young adults

EVIDENCE FROM LINKED REGISTER-PIAAC DATA

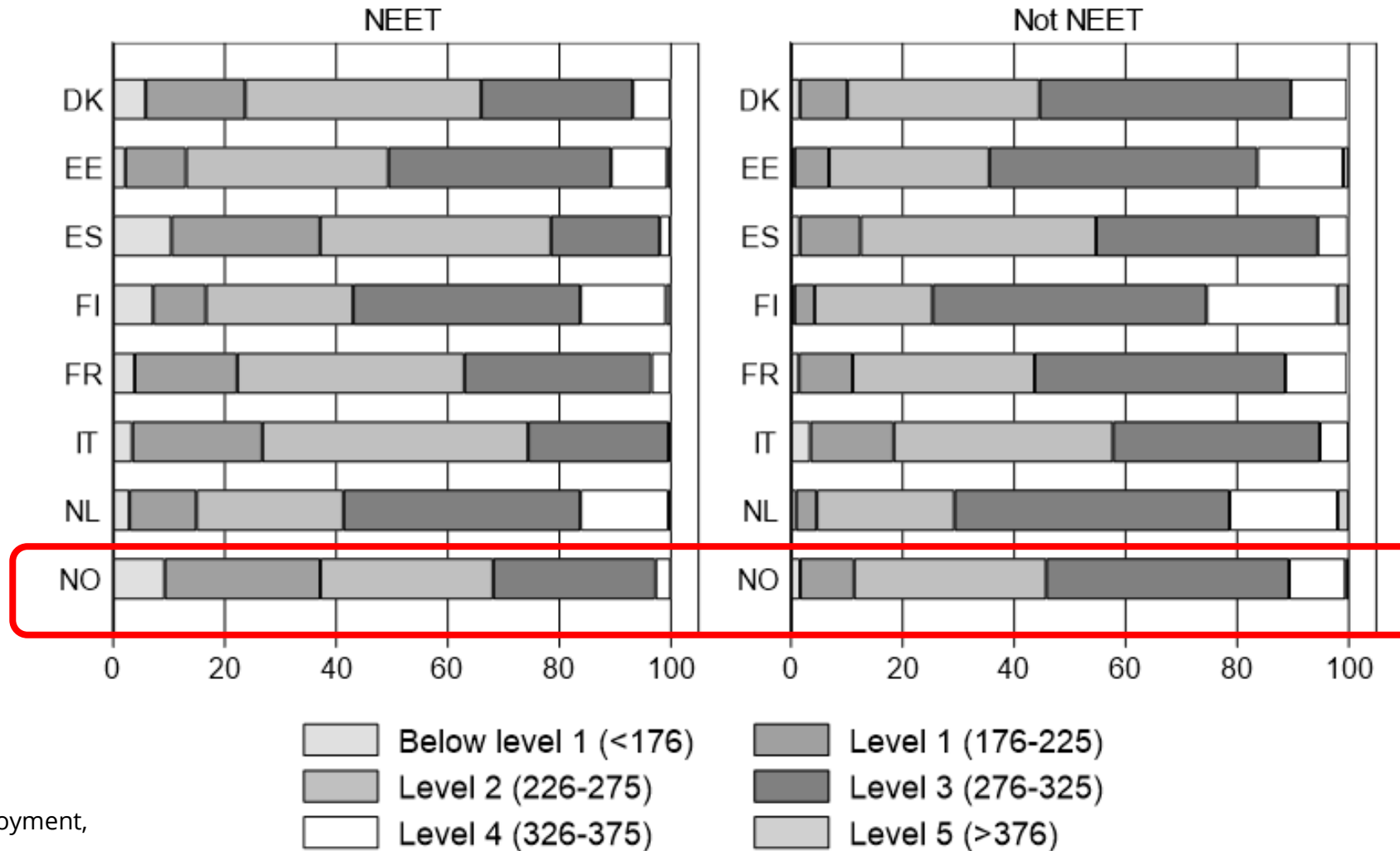
Barth, E., Keute, A. L., Schøne, P., von Simson, K., & Steffensen, K. (2021). NEET status and early versus later skills among young adults: Evidence from linked register-PIAAC data. *Scandinavian Journal of Educational Research*, 65(1), 140-152.



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# Young people being NEET have lower skills

Numeracy skills by NEET status. Age group 16-24 years old.



Note: NEET = not in employment, education, or training

# Research questions

- To what extent do formal skills acquired by the end of compulsory school protect against exclusion in adult ages?
- How important are skills acquired before the age of 16 compared to those acquired later on?

To alleviate endogeneity problems, we measure NEET status two years after PIAAC.



# Previous research

- The importance of early life skills (Heckman, 2000)
- Long-term effects of the quantity and quality of education (Schneeweis et al., 2014)
- The importance of early skills as measured by PISA scores for adult skills (Albæk, 2017; Gustafsson, 2016)



# We link PIAAC data with register information

- PIAAC participants aged 16-24 years living in Norway (N=901)

Survey data

- We use PIAAC-data on numeracy skills, age, gender, educational attainment, parental education, health

- NEET status (2011, 2013)

Register data

- The grade point average (GPA) from compulsory school

- Alternative measure of early skills – the criterion for admission to upper secondary school that combines several high stake exams and assessments



# What determines later skills as measured by numeracy skills in PIAAC?

- The grade point average is a key determinant of later skills
  - A higher GPA from compulsory school is associated with higher numeracy skills
  - Skills revealed at the age of 16 impact skills revealed at a later stage
  - Completed education ceases to be significant when the grade point average is introduced
  - Parental education affects numeracy skills even if we control for GPA



**Early skills determine later skills,  
but how do skills affect the  
probability of being NEET 2 years  
after PIAAC?**

# PIAAC skills and NEET status in 2013

- Linear probability models show a strong negative relationship between numeracy skills and NEET status
- The results are robust to the inclusion of other variables
  - Completed education reduces the probability of being NEET
  - Parental education as a strong predictor of NEET status

Is the relationship between later skills and NEET status robust to the inclusion of early skills?





# Early skills and NEET status in 2013

- The grade point average affects the probability of being NEET
- Coefficients for numeracy skills cease to be significant and are not robust to the inclusion of early skills
- Coefficients of completed education and parental education are reduced when controlling for early skills
- Those who were NEET in 2011 have a higher probability of being NEET in 2013

# Conclusions

- Large NEET differences associated with early skills
  - Differences in NEET status due to numeracy skills are not robust to the inclusion of early skills
  - Similar results using literacy skills as a measure of later skills
- A large portion of the later skills seem to be determined already at the end of compulsory school
  - Early skills appear to protect better against NEET rates than later skills as measured by PIAAC skills

# Thank you for your attention!

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