NEET status and early versus later skills among young adults

EVIDENCE FROM LINKED REGISTER-PIAAC DATA

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

• NEET status (2011, 2013)

• 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!