Individual Paper Session IV

Thursday, April 6th, 2017, 9:45 – 11:15

Paper Session: Skill formation across the life course

Chair
Harm Kuper (Freie Universität Berlin, Germany)

Room: Beethoven-Saal 1

Presentations

- Title: Findings of the young adult follow-up study
  Authors: Saida Mamedova (American Institutes for Research, USA) & Patrick Gonzales (National Center for Education Statistics, USA)

- Title: Examining the skills of older U.S. adults by demographics, workforce characteristics, and health measures
  Authors: Jaleh Sorouei & Saida Mamedova (American Institutes for Research, USA)

- Title: REACH – reaching young adults with low achievement in literacy
  Authors: Simone C. Ehmiq & Lukas Heymann (Stiftung Lesen, Germany)

- Title: The life-cycle evolution of gender gaps in reading and mathematical competencies
  Authors: Francesca Borgonovi, Marco Paccagnella (OECD, France) & Alvaro Choi (University of Barcelona Spain)

- Title: Out of necessity: Educational decisions and skill-formation when graduating during a recession
  Authors: Franziska Hampf, Marc Piopiunik (ifo Institute, Germany) & Simon Wiederhold (ifo Institute, University Ingolstadt/Eichstaett, Germany)

---

Title: Findings of the young adult follow-up study

Authors
Saida Mamedova (American Institutes for Research, USA) & Patrick Gonzales (National Center for Education Statistics, USA)

Abstract
Young Adult Follow-up Study (YAFS) is a study undertaken by the National Center for Education Statistics (NCES) in the United States that administered an online PIAAC survey to students who took PISA 2012 mathematics, reading, and science assessments, provided their contact information, and were willing to participate in an online study. The survey is provide by the OECD and is called Education and Skills Online (ESO). In the summer of 2016, at about 19 years of age, the students were asked to take the ESO assessments of literacy, numeracy and problem-solving in a technology-rich environment, as well as answer questions on the background questionnaire, related to their education, employment and other non-cognitive characteristics. The ESO 2016 data has then been combined with the PISA 2012 data to create a rich database on the skills outcome and employment and educational activities of 15-year-olds in the United States.

The presentation will provide an overview of the results of the study. It will include the section on the demographic, socio/economic and behavioral background, examining the ESO
and PISA performance as they compare across various background variables (ex. nativity, parental education, openness to problem solving). It will also include a section on successful transitions, examining the various activities and attitudes to adult life of the 19-year-olds in 2016 as related to their PISA performance four years earlier. The activities will describe the paths that the young adults take in transitioning to adult life. The three transitions that are of a particular interest are: from high school to post-secondary; from high school to the workforce; and from high school to adult life in general.

**Title:** Examining the skills of older U.S. adults by demographics, workforce characteristics, and health measures

**Authors**
Jaleh Sorouj & Saida Mamedova (American Institutes for Research, USA)

**Abstract**
This presentation uses data from the first round of U.S. PIAAC data collection in 2012 and the second round of U.S. data collection in 2014 (also known as the National Supplement). The National Supplement oversampled some subgroups of interest, including unemployed adults age 16-65, and added subgroups not in the original target sample, including older adults age 66-74. The focus of this presentation will be on the skill levels of U.S. older adults. Although older adults age 55-65 perform at or above the international average of those in the same age group in all three skills domains [literacy, numeracy and problem solving in technology-rich environments], and the skills gap between younger and older adults is smaller in the U.S. than internationally; U.S. older adults have lower skill levels than younger adults. Considering recent demographic and economic trends such as population aging and increased labor force participation among older adults, this study will look at the relationship between the skills of older adults, demographics, and employment and health outcomes.

After looking at the overall skill levels of U.S. adults age 55-74, this presentation will examine factors that may be associated with skills maintenance or decline with ageing. This includes looking at a profile of the demographics (educational attainment, gender, race/ethnicity, etc.) and workforce characteristics (employment status, income, occupation, etc.) of U.S. older adults and examining how these characteristics relate to skill levels. Understanding how skills and demographics relate to workforce outcomes among older adults will help inform policymakers about continued labor force participation in this age group.

Then, we will focus on health-related outcomes and behaviors based on additional health questions included in the U.S. Background Questionnaire. We will look at the overall self-reported health of U.S. older adults, whether they have medical insurance, common sources of health information (e.g. internet, family and friends, health care professionals, etc.), preventative health measures (e.g. flu shot, cancer screenings, etc.), and how these measures relate to skill levels. This may help give a better picture of the associations between health and skills among older adults and suggest specific areas of intervention.

**Title:** REACH – Reaching young adults with low achievement in literacy

**Authors**
Simone C. Ehmig & Lukas Heymann (Stiftung Lesen, Germany)

**Abstract**
The aim of the REaD project REACH is to identify ways in which young adults with low literacy skills can be reached and motivated to improve their reading skills. In a second step, access options are to be tested and evaluated in pilot projects.
The main focus is on young adults aged 16 to 35, who are an especially promising group among the adult struggling readers: they can profit most strongly and most sustainably from better reading skills, e.g. for their professional life. The earlier interventions take place, the better the chances are to maintain and strengthen reading competences in later life phases. The motivation and empowerment of the young adults as role models for their children will lead to a sustainable effect: If parents are enabled to read (aloud) their children will profit as well as further generations.

REACH is working with a multi-step approach beginning with the systematic secondary analysis of data resp. the use of existing analyses from leo. Level One study, from PIAAC and the National Educational Panel (NEPS). This step will allow to characterize the target group of 16 to 35-year-olds with low reading competences as differentiated as possible.

The analysis of PIAAC focuses on persons whose reading literacy is at level 1 and below. It is necessary to examine whether and to what extent these persons differ with regard to sociodemographic characteristics, with regard to experiences with education and training, unemployment and self-determination in the work of those who have better reading skills. The data will also be checked for differences in the use of digital devices in their private or business environments.

The second step is a systematic analysis of data from the socio-economic panel, the health monitoring of the Robert Koch Institute and other surveys in the field of media, market and social research. Data about the way of life, employment, leisure and health behaviour as well as educational processes and their influencing factors are used.

Options to reach and motivate young struggling readers are tested in three pilot projects.

---

**Title:** The life-cycle evolution of gender gaps in reading and mathematical competencies

**Authors**
Francesca Borgonovi, Marco Paccagnella **(OECD, France)** & Alvaro Choi **(University of Barcelona Spain)**

**Abstract**
While many progresses have been made in the last decades, especially in terms of educational attainments, gender gaps remain a distinct characteristic of the labor markets in virtually all OECD economies. Gender differences in field-of-study is often pointed out as an important factor behind the persistence of gender wage gaps in spite of the absence of educational attainment gaps, leading for instance to the under-representation of women in remunerative STEM careers. While gender gaps in mathematical competencies are well documented, little is known about the moment in which such gaps emerge and how they evolve over the life cycle. To better understand the role of different skills as determinants of gender gaps in labor market outcomes we make use of data from three large-scale international assessments (TIMMS/PIRLS, PISA and PIAAC), that allow us to follow representative samples of a given birth cohort over time. We are therefore able to map the evolution of gender gaps in reading and mathematics at age 10, 15, and 27. Our results suggest that male advantage in mathematics is smallest at age 10, but grows significantly between age 15 and age 27. Such evolution stands in sharp contrast with gender gaps in reading, that are small at age 10, large and in favor of females at age 15, and negligible at age 27. The relatively small cross-country variation in the evolution of gender gaps suggests that cultural and institutional factors are unlikely to play a major role in shaping such gaps.

---

**Title:** Out of necessity: Educational decisions and skill-formation when graduating during
a recession

Authors
Franziska Hampf, Marc Piopiunik (ifo Institute, Germany) & Simon Wiederhold (ifo Institute, University Ingolstadt/Eichstaett, Germany)

Abstract
Does high school graduates' exposure to bad macroeconomic conditions affect their likelihood to invest further in education? If so, how much does this additional education increase cognitive skills? Using international PIAAC data for 15 OECD countries, we provide evidence on the effect of business cycles on college enrollment, college graduation, dropouts and skill formation. An increase in the national unemployment rate at the time an individual leaves high school increases the likelihood to attend and complete college. There is no effect on the probability to drop out of college. Furthermore, "recession graduates" have significantly higher numeracy and literacy skills than "boom-time graduates".