

OSKA survey of education and research

Key findings

While the number of people who are studying to become nursery and primary school teachers is sufficient, there is a shortage of subject teachers and support specialists

- By the year 2025, the number of nursery school children will decrease by 4% while the number of primary and secondary school students will increase by 8%.
- In the last few decades, the population's regional distribution has changed
 - The proportion of children born outside of Harju and Tartu counties has dropped from a half to one third during this period.
- The supply of subject teachers for general education is one third behind the demand.
 - Every fifth maths, chemistry, geography and biology teacher and every fourth physics teacher is at least 60 years old.
 - Subject teacher programmes in universities lack students.
- The number of student places for nursery and class teachers is sufficient for meeting the future need for labour and there are plenty of people who want to study in these programmes.
- There is an increasing demand for support specialists because the number of students with special educational needs who study in regular classes is constantly growing.
 - When applying the principles of inclusive education, support specialists also need to support teachers in recognising students' needs and acting accordingly.
- Speech therapists are the most sought-after professionals of inclusive education and school psychologists following close behind.
 - The number of graduates from the programmes preparing these professionals is not sufficient.

Teachers of the future need to be mentors who are able to guide students' development

- The role of a teacher becomes increasingly more tutorial, focusing on creating links between different subjects. Emphasis is placed on communication, leadership and cooperation skills, understanding cultural differences and using digital tools in teaching.
- Teachers also require knowledge of inclusive education and educational and developmental psychology in their daily work to recognise students' specific needs and support each student according to his/her needs.
- Assistants to nursery teachers require professional training.

The strengths of Estonian research and the most competitive business fields are not compatible

- Since long-term strategic research areas in various economic fields have not been defined, research institutes and institutions of higher education lack guidelines when it comes to the expectations of society and also entrepreneurs with regard to the development of research areas.
- The cooperation between research and development organisations and enterprises is not sufficient for facilitating and implementing innovation.

- A considerable increase in the proportion of PhD degree holders is a precondition for increasing the added value of the Estonian economy.
 - In 2016, the OECD countries had an average of 10 PhD degree holders per 1000 people of working age. The respective figure for Estonia was 8 and 12.6 for Finland.
 - In Estonia, PhD degree holders are mainly employed in higher education.
- Doctoral programmes should focus more on providing knowledge and skills related to entrepreneurship, project management, communication and teamwork.

Background:

- One tenth of the employed population, i.e. approximately 65,000 people, are working in the field of education and research.
- In the last three years, the average salary of general education teachers has been 6-7% higher than the Estonian average. In 2016, the average gross wage of researchers was 1681 euros and for lecturers 1834 euros.
- The higher education required for working in education related professions can be obtained from the University of Tartu and Tallinn University, which offer 59 respective curricula in total. Universities also offer doctoral studies in various fields of research, which ensure a new generation of lecturers and researchers.
- The OSKA study of education and research analysed the need for labour force and skills until 2025 and made proposals on how to meet it.
- The OSKA forecasting system compiles projections of the need for labour force and skills by 2020 in all fields of the Estonian economy and compares these to the education and training offered by higher education institutions, VET institutions and continuing education courses.
- OSKA studies are conducted by the Estonian Qualifications Authority (*Kutsekoda*) and funded by the European Social Fund.