

FORECASTING THE TEACHING WORKFORCE IN LITHUANIA

EXECUTIVE SUMMARY

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The population of Lithuania has been declining in recent years and fell to 2.8m in 2017. Demographic trends in Lithuania are negative and, unless unexpected changes occur, do not look promising. According to projections prepared by Eurostat, the population of Lithuania will shrink to 2,67m in 2020 and will fall even further in 2030 and 2040 (to 2,2m in 2030 and to 1,2m in 2040)¹.

The demographic changes of the past decade have been reflected in the total pupil population, which has experienced a 5 percent decrease between the school years 2012-2013 and 2016-2017. The biggest decrease in pupil numbers can be seen in lower secondary and upper secondary education indicating that in two to three years' time, the number of pupils in the final school grades will fall significantly. However, there have been increases in pupil population at ISCED levels 0 (pre-primary) and 1 (primary) indicating that the school population will grow to some extent in the coming years.

Another central aspect of the teacher profession in Lithuania is the age of teachers. The teaching workforce is rapidly ageing; nearly half of general education teachers are 50 years and older. The most typical age group is 50-59 which represents 37 percent of teachers. Unlike other EU countries, teachers in Lithuania do not have to retire from teaching when they reach the retirement age. Approximately 6 percent of working teachers are already at retirement age as of the school year 2016-2017². If the current trend continues, 20 percent of the teaching workforce will be beyond retirement age in 5 years' time. The ageing workforce is a national issue, covering almost all regions.

Most replacement teachers are recruited from students graduating from initial teacher training (ITT) programmes at higher education institutions. The number of such students has declined significantly over the last 5 school years. A very large proportion of students entering ITT programmes

drop out before graduation and in recent years, of those who graduate, fewer than 15% entered the teaching profession immediately on graduation.

Teaching is not regarded as an attractive profession in Lithuania. Since a significant proportion of teachers, especially specialist subject teachers in rural schools, teach fewer than 18 hours per week, the average salary of Lithuanian teachers is among the lowest in the EU.

Recent reforms of the Lithuanian education system have been introduced to improve the situation of the teaching profession. A revised teacher training model, including an induction period, was drawn up in 2018. Under this model, experienced teachers will have an opportunity to mentor new teachers and get paid for this new official role. More clear pathways towards acquiring a qualification in teaching are defined through both consecutive and concurrent study programmes.

Along with changes in teacher training and in the career development system, ITT is being consolidated by establishing three Centres of Excellence. Three public universities, Vilnius University, Vytautas Magnus University and Šiauliai University along with their partners from Colleges, have agreed to lead and form the basis for Centres of Excellence in teacher training in Lithuania.

A crucial proposed change is in the teacher payment scheme. According to the Ministry of Education and Science³, one third of teachers in Lithuania earn only 430EUR net per month due to the low official number of hours worked. Until now, teacher payment was based on an hourly rate, leaving many teachers paid and employed on a part-time basis. Moreover, other education-related activities, undertaken in addition to classroom teaching, were not accounted for. A major reform of the system whereby all teachers will be paid on a full-time equivalent basis, has been agreed and has begun to be implemented in 2018.

¹ Statistics Lithuania (28th November, 2014). On Lithuanian population projections, Official Statistics Portal. <https://osp.stat.gov.lt/en/informaciniai-pranesimai?articleId=3012667>

² Unlike some other EU countries, teachers in Lithuania are not required to retire when they reach retirement age.

³ LR Švietimo ir mokslo ministerija, Informacinis vaizdo filmukas, www.etatinis.lt

In the context of this project, the aim of which was to develop a computerised teacher workforce model for Lithuania, the literature on teacher workforce models internationally as well as research on the issue by Lithuanian academics, was scoped and a summary of the results are included in this report. A sophisticated interactive computerised teacher forecasting model developed by the Department for Education in England was examined and was found to be both relevant and useful. The experience of teacher forecasting in Ireland where the development of a reliable teacher/supply model is ongoing, was explored.

The teacher forecasting model described in this report, is based on data currently available relating to teacher supply and demand in Lithuania. Detailed statistical data was available on levels and sectors of teachers, their specialisations, the municipalities in which they taught, the number of hours taught and the age and gender of the teachers. On the supply side, the team had access to data on pupil numbers by age and municipality, the likely output of ITT graduates by specialisation and other relevant information. While the data available enabled the team to produce the basic elements of a teacher supply/demand model in a relatively short period of time, further work will be required to develop a more sophisticated model which will ensure the reliability and validity of the forecasting results.

The team would like to emphasise that their results and findings at this stage are tentative and their accuracy will depend on a number of factors beyond their control, including the implementation of proposed policy reforms. In order to highlight the flexibility of the model and the tentativeness of the findings of the most likely scenario, set out in Section 5.1., the report presents projections based on two alternative scenarios in Section 5.2., referred to as high efficiency (HE) and low efficiency (LE) scenarios.

Based on the most likely scenario, the model forecasts that 3077 teachers who worked at schools in 2017-2018 will leave due to retirement within the next 4 years. **The largest nominal number of teachers likely to retire are pre-school tutors (680) and primary education teachers (306).**

A challenge to the supply side of the teaching workforce is the low graduation and employment levels of ITT graduates in Lithuania. The total pool of ITT students within the 4-year period is 848. However, based on historical information on student graduation and career take up (employment at schools), only 13% of graduates are expected to start working in schools immediately after graduation. **Taking account of drop-out and low employment rates, it is forecast that only 126 ITT graduates are likely to enter schools in 2018/19.**

Shortages of over 20 individuals are forecast in specializations such as **Lithuanian language (24), Mathematics (25), Other foreign languages (29), Grade 0 (55) and Psychologists (109). A surplus for Social educators (37) and Pre-school tutors (284) in 2018/19 is expected. The highest shortage of teachers is likely to be at primary school level (177).** Even if all ITT graduates receive employment, there would be a shortage of over 100 teachers.

The highest cumulative 4-year shortage can be seen in Primary school teachers, which adds up to approx. 700. If an earlier start of primary education is to be implemented and pupil participation in preschool education is to increase in rural areas, there is a risk of an even higher shortage in teacher numbers in those sectors. Other shortages in Lithuanian language and Mathematics might reach up to 200 individuals over a four-year period. The shortage of pre-primary teachers is likely to reach approximately 123. Due to differences in cohort sizes, the overall surplus for pre-school tutors will reduce to 229 in 4 years. Foreign language teachers (English and Other) will face a shortage of 171 and 159 respectively. All three scenarios forecast shortages for primary and pre-school teachers in 2018/19.

Based on the work of the team and on the findings of this report, some recommendations and suggestions are made. These include the following:

- A group (e.g. a Steering Committee) should be set up, coordinated by the Ministry of Education and Science, that would routinely meet to ensure teacher planning practice and

implementation of the processes needed to gather all necessary information and data. This group might include representatives of the Ministry of Education and Science, of the teaching profession, of municipalities, and of ITT Centres. The suggested involvement of the newly established ITT centres in the suggested collaborative teacher workforce planning team will provide a platform for engaging them in the change process.

- Regular and ongoing forecasting of pupil numbers will be needed to determine, inter alia, whether the increases in cohorts of young children are temporary or will continue for a longer period of time.
- Measures being introduced to improve pay and working conditions for teachers should be monitored to measure their impact on entry to ITT, dropout and graduation rates and employment levels.
- A survey of student attitudes should be conducted to identify the reasons for current ITT student dropout rates.
- Retirement incentives for teachers should be reviewed. Retirement should be an economically attractive option for teachers who are willing to retire.
- Large numbers of ITT graduates who chose not to work at schools indicate that there is a pool of individuals who were once motivated to become teachers. Programmes dedicated to encouraging such individuals to enter the teaching workforce might be introduced.
- The need for more teachers in preschool, pre-primary and primary education should be prioritised.
- Further development of the forecasting model will be required to incorporate all the data and information necessary for a comprehensive teacher workforce model.
- In the case that any of the above recommendations have resource implications – the necessary resources should be made available.



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