

POLICY PAPER

Czech Education Policy – Increasing attractiveness of teaching profession in the Czech Republic

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- The European cooperation in education and training (ET2020) policy framework formulated standards against which the performance of Czech education system can be compared. The goals, progression towards which will be evaluated by the EU next year, demand the share of 15-year-olds that are under-skilled in reading, mathematics and science be under 15%¹. Currently, the Czech education system fails to equip every fifth 15-year-old pupil with these basic skills². Furthermore, the share of low-performers has increased in both science and mathematics, the scores remained stagnating for reading since the first measurement (2003 in Maths, 2009 in Reading, 2006 in Science)³. On the other hand, almost every fifth principal cites the shortage of qualified teachers as a main barrier to providing better education⁴. To meet the ET2020 objectives and provide the future of the nation with adequate skills for the labour market, active citizenship and challenges of tomorrow, the attractiveness of teaching profession should be improved by consistent increases in salaries and social esteem of the profession.



Shortage of Teachers

Presently, the Ministry of Education studied the number of teachers in Czech schools in early 2019, and results⁵ indicated that this September, schools will lack 6000 teachers. The shortage of staff poses problems for the quality of education passed on to younger generations. The mean performance of Czech 15-year-olds decreased since the last PISA measurement in 2012 across science, reading as well as mathematics. From the perspective of the history of all measurements, while in 2006 some 15.5% were low achievers in science, in 2015 it was 20.7%. For maths the 2003 the share was 16.6% and in 2015 it was 21.7%. In reading the 2009 scores were 23.1%, in 2012 it was 16.9%, below the borderline set by the EU, but in 2015 it jumped back at 22%². This represents 33% increase in the share of low performers in science, 30% in mathematics and very modest decrease in reading by 4%. This means that in the near future, more Czechs will be unable to interpret basic scientific data in everyday lives; be able to calculate how much 1 litre of milk cost in British pounds or Euros; and after reading a text will struggle with recognising the main idea.

When queried about what hinders school's capacity to provide better education, 18.2% of lower secondary school principals reported the shortage of qualified teachers as the main barrier. This shortage of teachers is further manifested in a high number of students per teacher. In typical Czech

upper secondary school, there are 13.8 students per teacher, higher than the OECD average, which is 12.1⁶. Moreover, the students to teacher ratio has been increasing; in 2013, it was 13.0⁷. This development is important because the ratio is negatively correlated with quality of education received by pupils. Pupils in large classes can drift off task because of the lack of individual attention⁸. Smaller classes have positive long-term effects on reducing achievement gap in reading and science⁹.

In the long run, the problem lies in ageing workforce. Teachers in the Czech Republic are slightly older than the average across OECD. Some 37% of teachers are 50 and above, the OECD average is 34%. When the older teachers retire, the current ranks and newcomers will not be able to compensate for the change. Over the next 5 years, the shortage could increase to 11000 teachers⁵. To put this into perspective, the overall number of teachers working in pre-primary, primary and secondary education is 156,000¹⁰. The national report of the OECD highlights that the Czech Republic will have to renew three out of eight teachers in the next decade¹¹.

The pedagogical profession in the Czech Republic is regulated; the inflow of teachers must pass through the universities with bachelor's and master's degree¹². The data from the National Statistical Office point to a (at a glance) positive outlook of applicants for the pedagogical faculties. The attractiveness of teaching profession in the eyes of prospective university students remained relatively steady

¹ European Policy Cooperation (ET 2020 framework), European Commission, 10.7.2019, Available at: <https://bit.ly/2E234Wy>

² Education GPS, OECD, 9.7.2019, Available at: <https://bit.ly/2GWZaQP>

³ PISA 2015 key findings for the Czech Republic, OECD, 5.8.2019, Available at: <https://bit.ly/2yPETII>

⁴ TALIS 2018 Results (Volume I), OECD, 1.8.2019, Available at: <https://doi.org/10.1787/1d0bc92a-en>

⁵ Main results of the Special Survey on the State of Teaching in Kindergartens, Primary and Secondary Schools, Ministry of Education, Youth and Sports Department of School Statistics, Analyses and Information Strategy, , Available at: <http://www.msmt.cz/file/50371/>

⁶ Education at a Glance 2018, OECD, 1.8.2019, Available at: <https://doi.org/10.1787/eaq-2018-en>

⁷ Education at a Glance 2014, OECD, 1.8.2019, Available at: <https://doi.org/10.1787/eaq-2014-en>

⁸ Blatchford, P., Bassett, P. and Brown, P., 2011. Examining the effect of class size on classroom engagement and teacher-pupil interaction: Differences in relation to pupil prior attainment and primary vs. secondary schools. *Learning and Instruction*, 21(6), pp.715-730.

⁹ Konstantopoulos, S. and Chung, V., 2009. What are the long-term effects of small classes on the achievement gap? Evidence from the lasting benefits study. *American Journal of Education*, 116(1), pp.125-154.

¹⁰ Statistic Yearbook of Education – Performance indicators until 2018/19, MŠMT, 10.7.2019, Available at: <https://bit.ly/2ZK4A9d>

¹¹ Czech Republic - Country Note, TALIS 2018 Results, 1.8.2019, Available at: <https://bit.ly/2YORuX2>

¹² The teaching workforce in the Czech Republic, OECD Reviews of School Resources: Czech Republic 2016, OECD, 15.6.2019, Available at: <https://doi.org/10.1787/9789264262379-8-en>

for the past 10 years. While in 2008 the proportion of students starting pedagogical education was 11%, in 2017 it was around 10%. The problem, however, is in the variation in demography of the Czech Republic¹³.

If in 2008, roughly 11% of all university applicants considered going teaching, after 5 years the number of ready-made teachers was over 9000, *ceteris paribus*. Due to significantly shrinking pool of students leaving secondary education, those steady 10% will no longer be adequate; in 2017, the steady 10% brought only 5237 of prospective teachers. Moreover, the number is presumably not going to increase rapidly because the next cohort of 17-19 year-olds is numerically small due to low birth rates in early 2000s¹⁴. The attractiveness of the profession, keeping other things constant, needs to be increased to compensate for the shrinking pool of prospective university students.

Furthermore, as the data from the National Statistical Office referenced by researchers¹⁵ as well as former Czech Minister of Education Mrs Valachová¹⁶ indicate, only less than a half of students from pedagogical faculties proceed after graduation to teaching, and from that number, additional 25% leave the profession during the first 5 years¹⁷. The international perspective is hard to establish because standardized reports do not include this metric, nevertheless, some data can be found. The research done in Slovakia in 2013 indicated similar levels of dropout. Only around 47%¹⁸ of all students at pedagogical faculties wanted to develop their career in education. Perhaps unsurprisingly, it is Slovakia (5th worst in whole OECD by PISA results¹⁹) that the Czech pedagogical profession shares low social esteem²⁰ and low salaries⁶ with.

Quality of prospective teachers – The best either study something else or change their mind in due course

The attrition of students appears to be influential in terms of the quality of students as well. Studies²¹ document that the dropout is more likely to be observed among the students with excellent study results. These graduates, after finishing the pedagogical universities, seek jobs in more attractive positions outside education. As Czech researchers conclude¹⁷, the Czech education system is potentially losing the most skilful prospective teachers due to the unattractiveness of the profession.

The unattractiveness affects also the selection of candidates prior to their enrolment in the pedagogical tertiary education. When compared to candidates for other disciplines, the youngsters that apply for pedagogical tertiary education have the lowest study prerequisites among students across all disciplines²². The most skilful candidates choose to study degrees in maths or physics or other natural sciences. Furthermore, those students that start at the pedagogical universities but change their mind during their studies are significantly more skilful than the peers that follow through to the end of their degree.

The reality of low salaries and esteem

When asked "What types of change are most likely to make the teaching profession more attractive?" by EC in 2013, they marked as their first choice most frequently one of these two solutions. Increasing the salary was the

¹³ Data about students, first enrolled and graduates of universities, MŠMT, 10.7.2019, Available at: <https://bit.ly/2fDNvI0>

¹⁴ Fertility rate, total (births per woman) - Czech Republic, World Bank, 10.7.2019, Available at: <https://bit.ly/2M9tnjP>

¹⁵ Pišová, M. and Hanušová, S., 2016. Začínající učitelé a drop-out. *Pedagogika*, 66(4), pp.386-407.

¹⁶ Half of graduates from pedagogical faculties does not want to teach, due to low salaries, *Hospodářské noviny*, 7.3.2017, Available at: <https://bit.ly/2UhJddI>

¹⁷ Hanušová, S., Pišová, M., Do they want to stay or leave? Beginning teachers in Czech primary schools, 2018, Available at: <http://pages.pdf.cuni.cz/pedagogika/?p=11875&lang=cs>

¹⁸ Possibilities of teacher salary increases, Institute of Educational Policy, Ministry of Education, Science, Research and Sport of the Slovak Republic, 9.7.2019, Available at: <https://www.minedu.sk/data/att/9207.pdf>

¹⁹ PISA 2015 Results (Volume I), OECD, 9.7.2019, Available at: <https://doi.org/10.1787/9789264266490-en>

²⁰ Slovak Republic - Country Note, TALIS 2018 Results, 1.8.2019, Available at: <https://bit.ly/2sP1dwF>

²¹ Lindqvist, P., Nordäng, U.K. and Carlsson, R., 2014. Teacher attrition the first five years—A multifaceted image. *Teaching and Teacher Education*, 40, pp.94-103.

²² Motivation, priorities and quality of university applicants, SCIO, 2012, Available at: <https://bit.ly/31lpoo2>

solution for 50% of teachers, a more recognized social status for 34%²³.

The low salaries remained a reality of Czech education for several years. The international comparison reveals that Czech teachers earn the lowest wages in the whole OECD relative to their university educated compatriots⁶. The same holds for low social esteem of the profession in the eyes of the public. Only 16% of teachers think their profession is valued in a society. This number remains at the bottom end together with countries like Slovakia and since the last measurement improved only marginally. At the opposite end are Finland (58%), Singapore (72%) or Vietnam (92%), countries that score among the best in PISA testing.

The shortage of teachers has seemingly been ignored at political level. The teachers, principals and analysts have been reporting the problems ever since 2013, yet their situation remained grievous up until this very date. The current political mood, however, seems to be favouring change. The coalition led by Prime Minister's ANO pleaded to increase the salaries by 2021 to 150% of the salaries in 2017²⁴. This goal was accompanied by action; on 1.1.2019, the salaries of teachers were increased by 15%²⁵, the first major increase over the past several years. Even more ambitiously, the current Minister of Education suggested that in 2025, the salaries of teachers should be on 130%²⁶ of the national average wage. These visions are in line with calls for putting education as a priority also via national budget, as the Czech average expenditure per student remains well below the EU or OECD averages²⁷ and in terms of % of GDP has remained stagnant ever since 2000²⁸.

Increasing the attractiveness – The potential for improvement

Paradoxically, nearly every 5th applicant to the university education has passion for teaching and these applicants have very high study prerequisites yet choose not to pursue a teaching career. Research done by SCIO indicates that 19% of all high school students that apply for non-pedagogical disciplines would like to teach but do not want to have teaching as a main source of income²⁹. The reasons for doing so are intuitive: low salary (44% of respondents), the demandingness of the work of a teacher (29%) and low space for self-realisation (23%).

How would the number of applicants for pedagogical faculties change if some of these barriers were eliminated was studied by Eduzměna³⁰. The status quo is that 22% of all high school students apply to pedagogical faculties with their average test score from the national comparative exams is 44,8 (average score of all applicants is 50,6). This number includes the students that apply for pedagogical faculties as a safe choice, in case they are not admitted elsewhere. If the entry salary was 30,000 CZK (instead of 21,800-29,320³¹), the number of applicants would increase to 34% and their average test score to 46,7. If the profession was more prestigious, the number of applicants would be 32% of total and average test score 48,6.

²³ Study on Policy Measures to improve the Attractiveness of the Teaching Profession in Europe, European Commission, 2013, Available at: <https://doi.org/10.2766/41166>

²⁴ Teachers' salaries will rise again. All the parliamentary parties support it., ČTK24, 17.2.2018, Available at: <https://bit.ly/2ZMGGtG>

²⁵ Minister Plaga: Teachers' salaries are growing as planned., MŠMT, 2019, Available at: <https://bit.ly/2ZLR0Px>

²⁶ Plan: The salary of teachers in 2025 should be 130 percent of the average national salary, ČTK, 07.07.2019, Available at: <https://bit.ly/2M8npjh>

²⁷ Education spending (indicator), OECD, 2019, Available at: <https://doi:10.1787/ca274bac-en>

²⁸ Public spending on education (indicator), OECD, 2019, Available at: <https://doi:10.1787/f99b45d0-en>

²⁹ Let's attract students to pedagogy who would like to teach, SCIO, 2016, Available at: <https://scio.cz/download/TZ-ucitele-a-pedagogika.pdf>

³⁰ Analysis of Challenges of Education in the Czech Republic, Teachers and Teaching, Aspirants for Teachers, Eduzměna, 2018, Available at: <https://bit.ly/2KzhSPy>

³¹ Government Regulation No. 341/2017 Coll. on salaries of employees in public services and administration, Vláda ČR, 19.10.2017, Available at: <https://www.zakonyprolidi.cz/cs/2017-341>

Alternative proposed by the government

One possible solution to the problem of insufficient number of teachers may be to abandon the requirement to fulfil tertiary education to become a teacher. Allowing people with relevant expertise to teach would increase to pool of eligible candidates and could help alleviate the conditions of understaffing where the issue is most pressing. The proposal of the Minister of Education that experts without the required pedagogical education could be teaching at schools under the supervision of a senior member of staff was approved by the government in late May³² as a direct response to the projected shortage of teachers in September.

This proposal can help bring more teachers into schools, however, it is a mere reaction to the urgency of the problem and fails to address the heart of the issue from a strategic perspective. Simply allowing more people to teach can address the shortage in the short term but does little to improve the conditions that make the profession unattractive in the first place.

Policy recommendations

Increase the salary of teachers.

Higher salaries attract more able candidates into teaching³³. The link was proven empirically, the responses of Czech high school students indicate the potential positive impact of wage increase within the Czech education context. The exact figure should be left to set by the economic experts of the Ministry of Education, the international comparison, nevertheless, offers two opportunities for benchmarking teachers' salaries against the standards of the national economy.

³² The government supported the opening of the teaching profession to non-teachers. They should complete their education within three years, Novinky.cz, 27.5.2019, Available at: <https://bit.ly/2kJhN2T>

³³ What matters most in teacher policies? A framework for building a more effective teaching profession, SABER, 2012, Available at: <https://bit.ly/2yTOpKB>

First is the comparison of earnings of teachers against the earnings of other tertiary graduates. Among the developed countries of the world the, Czech teachers earn the lowest, only around 61% of the average wage of other tertiary graduates⁶. The EU average is above 93%, the OECD average is just above 90%. When young individuals consider returns to degree, the decision to pursue a career where equal effort to obtain a tertiary education pays off merely two thirds of the average the other degrees offer, a case for teaching is rather a weaker one.

Second is the benchmarking for the rate of growth of teacher's salaries. The analysis of OECD scholars revealed that in countries where teachers' salaries increased more rapidly than per capita GDP between 2005 and 2015, there was often an increase in the percentage of students who reported expecting a career in teaching; while in countries where teachers' salaries did not keep up with overall GDP growth – as in Turkey and Korea – this percentage decreased, on average³⁴. These findings present a specific recommendation for the rate of increase. Raising salaries per se is not a sole remedy, the actual increase should be over the general improvements of the economy, if it is to bring more teachers to schools.

Increasing the value of teaching profession in society

As the OECD report³⁵ concludes, the countries with higher teacher salaries and higher perceptions of the social value of the teaching profession have, on average, larger shares of students who expect to work as teachers. The increase of social value of the profession can be achieved by numerous paths. The increase in salaries plays an important role in the social perception of the profession. Higher salaries of teachers were associated with higher

³⁴ Effective Teacher Policies, OECD, 2018, Available at: <https://doi.org/10.1787/9789264301603-en>

³⁵ Teaching in Focus, OECD, 2018, Available at: <https://doi.org/10.1787/d6a81156-en>

proportion of teachers who that the teaching profession is valued in their society³⁴.

The systemic approach for increasing the value of teaching profession is by creating an equivalent to the professional standards body under the auspices of the Ministry of Education, which main goal would be to reinforce the quality and image of the teaching profession. This organization should work closely with the employees' unions, employers' organizations, school heads, scientific researchers and students' associations.

Such organizations have been implemented elsewhere, with two successful examples being Ireland (The Teaching Council) and Norway (GNIST programme). GNIST, for instance, have recorded significant success on the field of public perceptions of the teaching profession through positive shift in media coverage, which resulted in 45% increase in people applying to teacher education³⁶. Public communication as a tool widely used for increasing the value of the profession, remains overlooked in the Czech Republic. A few countries have designed a coherent long-term strategy for promoting a positive image of teaching profession in society, like Ireland, Estonia, Norway or Scotland. Other countries have undertaken some parts of a long-term strategy of communication including publicity campaigns like France, England or Sweden³⁷.

These campaigns proved to be a useful way of addressing the staff shortages and attracting more people

to teaching. A successful example can be found in the UK³⁸. The national government launched a recruitment campaign to attract more people into teaching in 2000. The teacher supply shortfall began to be reduced in 2000/2001. By 2003/2004, the vacancy-to-employment rate halved to less than 1% for all subjects. Mathematics and physics are the two subjects which had the greatest shortage of teachers. The number of new recruits in mathematics almost doubled between 1999 and 2005. Communicating the importance of teachers for the development of children and the society can help elevate the perception of the wider public about teaching, increase the social esteem of the profession, and attract more people with passion for teaching into classrooms.

Conclusion

Increasing salaries and making the profession more prestigious in the eyes of the potential applicants to the pedagogical faculties as well as the wide public, would not only bring more teachers to schools, decrease the student-to-teacher ratio and help facilitate better education results overall; but also bring to the profession people who not only have better study prerequisites, but, most importantly, have the passion for teaching. Thus, the ministry should follow through with the recommendations of this paper and implement the policy solutions proposed.



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³⁶ Study on Policy Measures to Improve the Attractiveness of the Teaching Profession in Europe, Volume II., European Commission, 2013, Available at: <https://bit.ly/34eR311>

³⁷ Study on Policy Measures to Improve the Attractiveness of the Teaching Profession in Europe, Volume I., European

Commission, 2013, Available at: <https://hal.archives-ouvertes.fr/hal-00922139>

³⁸ Lessons from PISA for the United States, Vignettes on Education Reforms: England and Poland, OECD, 2011, Available at: <https://doi.org/10.1787/9789264096660-11-en>