

Why do teachers leave schools? Evidence from lower secondary schools in the Czech Republic

Jana Straková and Jaroslava Simonová

*Faculty of Education, Institute for Research and Development of Education,
Charles University, Praha, Czech Republic*

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Abstract

Purpose – This study aims to supplement the international knowledge on factors determining retention in the teaching profession with findings from the Czech Republic. The study aims to answer the question of what factors on the part of schools and teachers are related to teachers' decision to leave the teaching profession, either temporarily or permanently. It also examines the differences between teachers at the beginning and end of their professional careers.

Design/methodology/approach – This study presents a secondary analysis of the data collected in a survey of 1,230 Czech secondary school teachers implemented in 2021 in the same schools as the TALIS survey in 2018. The longitudinal design makes it possible to observe the impact of school variables on teachers' willingness to remain in the profession. Data are analysed through logistic regression.

Findings – The analysis shows the importance of sufficient financial evaluation, the composition of the student body, instructional leadership, and school innovativeness for the retention of teachers in the profession. The analysis further shows that the factors causing teachers to leave the profession differ for those at the beginning and at the end of their teaching careers.

Research limitations/implications – The limitations of the study lie in the fact that this is a secondary analysis. The questionnaires were not designed in accordance with the aim of our study, and so the variables were constructed from existing data to best fit our chosen framework.

Practical implications – The results of our analysis indicate that the Czech education policy should focus not only on general increases in teachers' salaries, but also on the adjustment of increases over the course of a teacher's career. The starting salary may be important for retaining young teachers in the profession, while at later stages in their careers their decision to stay may be more influenced by other factors. Our research also showed the importance of leadership. In schools where the principal supports his or her teachers and takes care of their professional development, teachers have a greater tendency to stay in the profession than in schools where the management does not perform this function.

Originality/value – The study enriched international knowledge about factors affecting teachers' retention in the profession with findings from the Czech educational system characterized by high school autonomy and low teacher salaries.

Keywords Binary logistic regression, TALIS, Longitudinal design, Leaving the profession, Shortage of teachers

Paper type Research paper

1. Introduction

Research shows that of those variables potentially open to the influence of policy, factors to do with teachers and teaching are the most important influences on student learning (e.g. Darling-

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Hammond, 2000; Rivkin *et al.*, 2005). The question of how to attract, develop, and retain talented people in the teaching profession is thus of great importance for education policy in all education systems (Barber and Mourshed, 2007; OECD, 2012). This study focuses on identifying school-based factors that strengthen the willingness of teachers to stay. It uses data from a unique survey of Czech teachers, which followed on from the TALIS survey in 2018.

1.1 Factors determining retention in the teaching profession

Research shows that the best-performing education systems provide excellent teaching for all students, not only for a small group of children from families with high socio-economic status (e.g. OECD, 2004). This requires a sufficient supply of effective and competent teachers. Many education systems face a daunting challenge in recruiting high-quality graduates as teachers, particularly in shortage areas, and retaining them once they are hired (e.g. Carver-Thomas and Darling-Hammond, 2019; Sutcher *et al.*, 2016). In order to overcome these problems, some education systems often not only recruit their teachers from the best students, they also guarantee their teachers working conditions enjoyed by professionals – individuals who are engaged in the teaching occupation, have acquired expertise and qualifications in teaching, and are prepared for a heterogeneous student population and are able to perform the multiple roles required by 21st-century teaching (Darling-Hammond, 2021; OECD, 2005). It means that they transform the organisation of work in their schools by replacing administrative forms of management with professional norms that provide the status, pay, professional autonomy and accountability, and high-quality training and responsibility that go with professional work in the field of education, grounded in a comprehensive knowledge base that integrates an understanding of content, pedagogy, and learners and addresses the diverse social, emotional, and academic needs of students within the educational context (Darling-Hammond, 2021). People are attracted to the teaching profession by some combination of occupational status, the work environment, a sense of personal contribution, and the financial rewards associated with the profession (OECD, 2005; Watt *et al.*, 2012). Teacher policy needs to examine these aspects closely, particularly in the light of the teacher shortages that many advanced economies already face and that will grow in the near future as large numbers of teachers reach retirement age [1]. And even where general teacher supply and demand are in balance, many countries face shortages of specialist teachers and shortages in schools serving disadvantaged or isolated communities, most notably in the fields of mathematics and science (e.g. Carver-Thomas and Darling-Hammond, 2019).

For this reason, a number of research studies focus on exploring the motivation to choose to study teaching (e.g. Renger *et al.*, 2022), to enter the teaching profession after finishing pre-service training (e.g. Königa and Rothland, 2012), and to remain in this profession (e.g. Madigan and Kim, 2021). Specific attention is paid to the departure of beginning teachers. According to Federičová (2021), many beginning teachers in European countries leave the profession completely within five years of starting (roughly 45%). So the first years play a key role in whether teachers leave or stay.

Although in many professions, turnover is generally considered a relatively positive phenomenon that allows vacant job positions to be matched with suitable candidates, in the case of the teaching profession, it is not perceived in an unequivocally positive way, because there are so-called hidden costs tied to it (Sorensen and Ladd, 2020). For example, Carver-Thomas and Darling-Hammond (2019) believe that teacher turnover is problematic for schools as if they leave the profession, as well as if they transfer to another school but remain in the profession, in both cases, it can contribute to imbalances in the teacher labour market, even if there is a sufficient overall supply of teachers to meet demand. It can also deepen the differences between schools because the elevated rates of teacher mobility can compound the challenges involved in recruiting new teachers (Ingersoll, 2001). Teachers' motivation to stay

in or leave the profession is influenced by a variety of diverse factors, which have been investigated by researchers both in isolation and in their mutual contexts. Much research is focused on tracking school factors. This is where the composition of the student body and school size proved to be important (e.g. [Loeb et al., 2005](#); [Borman and Dowling, 2008](#); [Nguyen et al., 2020](#); [Carver-Thomas and Darling-Hammond, 2019](#)), as did the workload including time pressure and working conditions such as autonomy, teacher cooperation, relations with colleagues and parents, and teacher perceptions of student discipline in the school (e.g. [Loeb et al., 2005](#); [Buchanan, 2010](#); [Skaalvik and Skaalvik, 2011](#); [OECD, 2012](#); [Geiger and Pivovarova, 2018](#); [Nguyen et al., 2020](#)). The composition of the student body influences teachers emotionally and in terms of exhaustion – teachers become more exhausted in low-SES schools ([Van Eycken et al., 2024](#)). Working conditions have also been studied in relation to teacher job satisfaction ([Toropova et al., 2021](#)) and burnout ([Madigan and Kim, 2021](#)). The pedagogical and administrative management of the school is also rated as very important, typically administrative support and the administrator's ability to encourage and acknowledge staff, communicate a clear vision, and generally run a school well (e.g. [Skaalvik and Skaalvik, 2011](#); [Carver-Thomas and Darling-Hammond, 2019](#); [Nguyen et al., 2020](#)). The decision to remain in the profession is also governed by the wider social context, which includes the prestige of the teaching profession and its social relevance and salary (e.g. [Loeb et al., 2005](#); [Buchanan, 2010](#); [Geiger and Pivovarova, 2018](#); [OECD, 2012](#); [Nguyen et al., 2020](#)).

Many researchers have also studied the relationship between motivation to leave the profession and the personal characteristics of teachers. [Carver-Thomas and Darling-Hammond \(2019\)](#) found that teacher age was related to leaving rates, with the youngest and oldest categories of teachers having higher rates than those who were in mid-career. Teachers' preparation pathways also influenced turnover. [Toropova et al. \(2021\)](#) concluded that in lower secondary education, female teachers, teachers with more exposure to professional development, and more efficacious teachers tended to have higher levels of job satisfaction that supported their motivation to stay in the teaching profession. [Ladd \(2011\)](#) and [Vagi and Pivovarova \(2016\)](#) also showed a connection between willingness to stay in the teaching profession and self-efficacy. The enduring commitment of long-serving teachers to their profession can largely be attributed to altruistic and intrinsic motivations. Consequently, strategies aimed at retaining such educators should prioritise fostering these motivations, ideally complemented by nurturing teachers' perceived professional mastery ([Chiong et al., 2017](#)). In Sweden, the inclination of teachers to stay in the profession is primarily influenced by their perceived health status, work motivation, and support from colleagues. This highlights the significance of cultivating a health-promoting work environment within schools ([Casely-Hayford et al., 2022](#)). In Australia, heavy workloads, health and wellbeing, and the status of the profession influenced teachers' intentions to leave the profession ([Heffernan et al., 2022](#)). Altruistic and intrinsic motivation, coupled with support from colleagues and a sense of value from school leaders, was notably prominent in high-need schools ([Arthur and Bradley, 2023](#)). Most of the above-mentioned factors are included in the comprehensive framework created by [Nguyen and Springer \(2021\)](#). The factors influencing teacher attrition are classified into three categories: personal factors, school factors, and external/policy factors. Personal factors include teacher characteristics such as age, well-being, career satisfaction, and teacher qualifications such as initial education. School factors include school organisational characteristics, such as collaboration between teachers, autonomy, the work environment, administrative support, and leadership opportunities, and school resources, such as expenditure, teaching materials, and the characteristics of the student body, such as student achievement or socio-economic status. External/policy factors include accountability, such as evaluation policies, workforce ones, such as salaries, and school improvements, such as reforms and innovations.

A similar classification of the reasons for leaving the profession was also found in an extensive meta-analysis of the reasons for the departure of special education teachers (Billingsley and Bettini, 2019). It focuses on teacher preparation and qualifications, school characteristics, working conditions (including, beside demands and the composition of the student body, also the social context, such as school culture, support from the school leadership and colleagues, and autonomy), resources (including time and financial compensation), and teacher demographics and non-work reasons for leaving.

1.2 Teacher shortage in the Czech Republic

In the Czech Republic, the departure of teachers from the profession has not been systematically monitored. There are only partial pieces of information available about teacher departures and the reasons for them. In 2012, the teacher shortage reported by principals in the Czech Republic was one of the lowest among OECD countries (OECD, 2012). Since then, the situation has changed. In 2018, the proportion of teachers intending to leave their job within five years increased to 24% and was just below the OECD average (OECD, 2019). According to Federičová (2021), teacher turnover in the Czech Republic (at 31%) is rather higher compared to other countries in Eastern and Central Europe but does not reach the levels found in the Nordic countries (more than 35%). Schools are currently forced to proceed, for example, by admitting to the teaching profession candidates even without the prescribed qualifications. This may have negative consequences for the quality of educational results in the long term, something which will not be easily or quickly rectified later. In some districts, teachers without the proper qualifications make up a quarter of the workforce (Czech School Inspectorate, 2022). In addition, the problem may worsen significantly in the foreseeable future, as strong population age groups are retiring and thus higher numbers of teachers who have no one to replace them (Czech School Inspectorate, 2021). At the same time, the PISA 2018 data showed that in the Czech Republic, there is a relatively low proportion of 15-year-olds who intend to become teachers (OECD, 2018a).

Hanušová *et al.* (2020) examined the retention of novice teachers. Their study suggests that the Czech Republic has one of the highest attrition rates among beginning teachers (65%). They point to the key importance of school factors, especially the influence of school culture and climate and the influence of cooperation with colleagues and school management. The authors conclude that, in the Czech educational context, beginning teachers usually remain in schools provided they are working in a well-functioning school, with cooperative colleagues and a good principal. In other words, teachers want to stay in schools with a good collegial climate and good leadership.

1.3 This study

In reaction to the above-mentioned facts, in 2021 the Faculty of Education of Charles University launched the project *Reasons for non-admission of graduates of faculties of education to the teaching profession* [2]. One goal of the project was to identify significant barriers and factors that lead to a shortage of teachers at various levels. It aimed to analyse the development, current situation, and scope and dynamics, as well as to perform an international comparison of the shortage of teachers in Czech education and the reasons for it. It aimed to determine whether, to what extent, and why graduates of faculties of education and teacher study programmes at other faculties do not enter the profession for which they were prepared during their education. It also aimed to determine whether, to what extent, and why teachers leave the profession early. It collected data from teachers, student teachers, and school principals.

This study presents a secondary analysis of the data collected in the project. It takes advantage of its longitudinal nature, which is because the data from teachers was collected in

2021 at schools that participated in the TALIS survey in 2018 [3]. Therefore, from the TALIS research, information about the diverse characteristics of the schools is available. We assume that the information about the school characteristics three years before the teacher questionnaire survey makes it possible to explore in what context the decisions of teachers to continue working as a teacher or to leave the profession were formed and what school characteristics influenced this important decision. Collecting data at different points in time allows us to formulate inferences about the causes of the decision to leave.

This study aims to supplement the international experience with findings from the Czech Republic. The study aims to answer the question of what factors on the part of schools and teachers are related to teachers' decision to leave the teaching profession, either temporarily or permanently.

2. Methods

2.1 Survey design

This study presents a secondary analysis of the data obtained as part of a questionnaire survey of teachers. The schools from which the teachers were selected in 2021 also participated in the OECD Teaching and Learning International Survey (TALIS) in 2018 in the PISA-link option [4]. The study was thus longitudinal at the school level.

2.2 Participants

In 2021, during the COVID-19 pandemic, a teacher questionnaire was administered to teachers in 167 schools educating fifteen-year-old students. These included 51 basic schools, 68 upper secondary schools providing academic education, and 48 upper secondary schools providing vocational education. The data were collected from 4,921 teachers. In 2018, the TALIS research collected data from 219 principals and 3,447 teachers from 219 schools.

2.3 Data collection tools

In 2021, the questionnaire contained questions concerning the educational and professional history of the teachers and their attitudes towards the teaching profession and their intention to remain in it. In the TALIS survey, questionnaires asking about attitudes, working experience, and working conditions were administered to school principals and selected teachers (OECD, 2018b).

The data was collected electronically through the system of the Czech School Inspectorate, which also ensures the administration of international surveys. Administration by the Czech School Inspectorate guaranteed high response rates.

2.4 Analysis of the data

Only teachers younger than 58 years old [5] teaching in basic schools were included in this analysis – 1,230 teachers from 51 basic schools. The number of teachers per school ranged from six to 48. The reason why the analysis was limited to basic school teachers is that the individual upper secondary school tracks in the Czech Republic differ considerably. While the academic track tend to be attended by motivated pupils from educated families, vocational tracks are often attended by pupils from a less stimulating environment and face major disciplinary problems. The statements made by teachers and principals from individual tracks are thus not easily comparable, as they reflect the very different environments in which these educators work.

The answer to the research question was sought using logistic regression on the data collected in 2021 and in OECD TALIS in 2018 [6].

The dependent variable was the intention to leave the teaching profession (agreement with the statement *I am considering leaving the teaching profession* – either temporarily or permanently) in 2021. The independent personal factors were age, satisfaction with one's own salary, and satisfaction with one's own performance in the school. The independent school and external/policy factors (according to [Nguyen and Springer \(2021\)](#)) were extracted from the TALIS 2018 questionnaires for teachers and school principals and aggregated at the school level.

The variables extracted from the TALIS 2018 questionnaires were constructed by principal component analysis from thematic questionnaire batteries. We tried to select the batteries that best fit the dimensions of Nguyen and Springer's framework (2021). We tried to cover the framework as best we could, but not all the variables were available. For example, we did not have information about the salaries of teachers, but only information about their satisfaction with their salaries, which we included among personal factors. One of the external/policy factors in Nguyen and Springer's framework (2021) was school reform. In the TALIS 2018 questionnaires there was a set of questions related to school innovativeness. We regarded this dimension as a policy dimension, although it encompassed not only innovations supported by the governmental policies but also innovations originating in the school.

The list of variables is shown below. The source (teacher or principal questionnaire), the number of a battery in the TALIS questionnaire [7], and the wording of the questions included in the principal component analyses are given in the footnotes, as well as information about the proportion of variance explained by the first factor. Unless otherwise noted, the responses used a four-point scale, on which the respondents were asked to express their level of agreement with the statements that were presented (1 – strongly agree, 2 – agree, 3 – disagree, 4 – strongly disagree). The descriptive statistics of the variables are included in [Appendix](#).

School organisational characteristics:

- (1) autonomy – teacher control over areas of planning and teaching [8]
- (2) relations – relationships at school [9]
- (3) job satisfaction – satisfaction with various aspects of the teaching profession [10]
- (4) cooperation – cooperation between teachers in a school [11]
- (5) stress – the amount of stress associated with schoolwork [12]
- (6) instructional leadership – the actions that a principal takes to promote the growth of student learning [13]

Student body characteristics:

- (1) students with special educational needs (SEN) – proportion of students with SEN
- (2) disadvantaged students – proportion of students from socio-economically disadvantaged homes [14]

School resources:

- (1) lack of resources – shortage of space and equipment [15]

External/policy factors:

- (1) innovativeness – efforts to improve the work of the school [16]

The models presented in this paper were estimated in IBM SPSS Statistics 25.

3. Findings

Table 1 shows the parameters of a binary logistic regression explaining the decision of basic school teachers to leave the profession – either permanently or temporarily. This intention was expressed by 13.8% of the basic school teachers. At the individual level, the explanatory variables are age and satisfaction with the salary and with one’s performance as perceived by teachers in 2021. At the school level, the explanatory variables are school characteristics as viewed by the teachers (collectively – at the school level) and principals in 2018. The teachers answered questions about teacher autonomy, the opportunity to participate in school decisions, relationships among teachers and between teachers and students, the job satisfaction of the teaching body, the level of stress among teachers, and school innovativeness. The principals reported instructional leadership, shortages of equipment, and the proportion of students with special educational needs and socio-economically disadvantaged students.

The statistically significant factors ($p < 0.05$) are given in italics in Table 1. The Nagelkerke *R* Square shows that the model explains about 13% of the variance in the dependent variable. The conditions for applying binary logistic regression are met. We have a sufficient number of cases available and the multicollinearity in the model, as measured by the Spearman’s correlation coefficient between predictors, is limited [17].

The table shows that age and satisfaction with the salary are statistically significant at the individual level. The lower the age and the lower the satisfaction with the salary, the higher the intention to leave the profession. Satisfaction with one’s own performance is not significant at the 0.05 level.

At the school level, there are four important factors, representing all three dimensions of the framework. Among school organisational characteristics, instructional leadership proved to be statistically significant. The proportion of socio-economically disadvantaged students is on the border of statistical significance. The lower the focus on instructional leadership and the higher the proportion of socio-economically disadvantaged students, the higher the

	Coefficient	s.e	<i>p</i> -value
Personal factors			
<i>Age</i>	<i>-0.050</i>	<i>0.009</i>	<i>0.000</i>
<i>Dissatisfaction with salary</i>	<i>0.559</i>	<i>0.115</i>	<i>0.000</i>
Dissatisfaction with one’s own performance	0.331	0.180	0.065
School organisational characteristics			
Autonomy	-0.525	0.343	0.125
Relationships	-0.072	0.399	0.856
Job satisfaction	-0.610	0.449	0.174
Cooperation	-0.233	0.274	0.395
Stress	-0.346	0.334	0.300
<i>Instructional leadership</i>	<i>-0.261</i>	<i>0.118</i>	<i>0.027</i>
Student body characteristics			
Students with SEN	-0.369	0.208	0.076
<i>Disadvantaged students</i>	<i>0.304</i>	<i>0.157</i>	<i>0.053</i>
School resources			
<i>Shortage of equipment and space</i>	<i>0.287</i>	<i>0.108</i>	<i>0.008</i>
External/policy factors			
<i>Innovations</i>	<i>0.599</i>	<i>0.300</i>	<i>0.046</i>
Intercept	-1.403	0.767	0.067
Nagelkerke <i>R</i> Square			0.129

Source(s): Author’s own work

Table 1.
Factors actually
influencing the
decision to leave the
profession

intention to leave the profession. The intention to leave is also higher in schools with higher shortages of equipment (school resources) and in schools with lower levels of school innovativeness (policy factor). The less innovative (the more rigid) the school is, the higher the tendency to leave the profession is.

The model was also estimated for the youngest 20% and oldest 20% of the teachers. The results are included in Table 2. Table shows that for the youngest teachers, the only statistically significant factors are space and material shortages in the school and salary. Older teachers tend to quit the profession from schools with a lower proportion of students with SEN and with inadequate instructional leadership.

4. Discussion

The study built on the framework created by [Nguyen and Springer \(2021\)](#) and shows the importance of both personal and school factors for the decision to leave the profession. The study confirms previous findings showing that the decision to leave the profession is dependent on teachers' age (e.g. [Federičová, 2021](#)). Young teachers leave more often and systematic attention must be paid to motivating them to stay in the profession ([OECD, 2012](#)). Even though teachers of all ages indicate the salary as being of medium importance in their statements about the importance of individual factors, it has a significant influence on their actual decision to leave, which confirms the findings from other surveys (e.g. [Kemmerer, 1990](#); [McDonald, 1999](#); [Borman and Dowling, 2008](#); [Buchanan, 2010](#); [Skaalvik and Skaalvik, 2015](#)).

Table 2 shows that the importance of remuneration differs for teachers at the beginning and end of their careers. While for younger teachers dissatisfaction with the salary is an important impetus for leaving, for older teachers this factor is no longer statistically significant.

In recent years, Czech education policy has paid a lot of attention to increasing teachers' salaries because compared to OECD countries, the Czech Republic has long had one of the

	35 years and younger			53 years and older		
	B	s.e	p-value	B	s.e	p-value
Personal factors						
<i>Dissatisfaction with salary</i>	0.519	0.189	0.006	0.490	0.335	0.144
Dissatisfaction with one's own performance	0.470	0.320	0.142	0.143	0.490	0.771
School organisational characteristics						
Autonomy	0.246	0.621	0.692	-1.662	0.980	0.090
Relationships	-0.217	0.679	0.749	-1.207	1.147	0.293
Job satisfaction	-0.614	0.760	0.419	0.806	1.361	0.553
Cooperation	-0.062	0.473	0.896	-0.031	0.998	0.975
Stress	-0.258	0.569	0.651	1.486	1.219	0.223
<i>Instructional leadership</i>	0.009	0.224	0.967	-0.880	0.440	0.045
Student body characteristics						
<i>Students with SEN</i>	-0.176	0.402	0.662	-1.239	0.633	0.050
Disadvantaged students	0.231	0.275	0.401	0.204	0.456	0.655
School resources						
<i>Shortage of equipment and space</i>	0.484	0.198	0.015	0.124	0.337	0.712
External/policy factors						
Innovations	0.865	0.536	0.107	0.506	1.030	0.623
Intercept	-3.368	1.173	0.034	-2.029	1.619	0.210
Nagelkerke R Square			0.135			0.182

Table 2. Factors actually influencing the decision to leave the profession for the younger and older teachers

Source(s): Author's own work

lowest shares of teachers' salaries compared to the salaries of other workers with tertiary education [18]. However, little attention has so far been paid to salary development over the course of a career. In the last three years, the average salary of teachers has grown at a faster rate than that of other employees (26 vs 16%). However, the increase was especially felt by older teachers. Teachers over 55 receive 25% more than teachers under 35. Salary growth in the Czech Republic is very slow; it takes teachers more than 30 years to reach the maximum salary (Wichova, 2021). The results of our analysis indicate that the Czech education policy should focus not only on general increases in teachers' salaries, but also on the adjustment of increases over the course of a teacher's career. The starting salary may be important for retaining young teachers in the profession, while at later stages in their careers their decision to stay may be more influenced by other factors.

The analysis has not shown a statistically significant relationship between the intention to leave and satisfaction with one's own performance. If we consider this variable as an indicator of self-efficacy, then this finding would contradict the findings of Vagi and Pivovarova (2016), who demonstrated a connection between self-efficacy and motivation to remain in the teaching profession. Han (2023), on the other hand, found negative correlation between self-efficacy and anticipated retention for first-year teachers. Such a finding needs a more thorough exploration in future research focused on the nature of the relationship between anticipated retention and self-efficacy.

Our research showed the importance of leadership. In schools where the principal supports his or her teachers and takes care of their professional development, teachers have a greater tendency to stay in the profession than in schools where the management does not perform this function. This confirms the findings of previous studies. For example, Bogler (2001) addressed the impact of management style on teachers' satisfaction, which determines their willingness to remain in the teaching profession. She showed that principals' leadership styles and decision-making strategies affected teachers' satisfaction both directly and indirectly through their perceptions of their occupation. The importance of educational leadership was also emphasised by OECD (2005) and was identified as an important predictor of teachers' job satisfaction by Cansoy (2019). It showed that some countries place a greater emphasis on teacher evaluations to support improvements in teaching practice. While these evaluations are designed mainly to enhance classroom practice, they provide opportunities for teachers' work to be recognised and celebrated, and help both teachers and schools to identify professional development priorities. They can also provide a basis for rewarding teachers for exemplary performance (OECD, 2005).

This is an important insight, because in the Czech Republic, as in many other countries, educational leadership is given less importance at the expense of managerial skills. Today the Czech education system is characterised by an unprecedentedly high degree of school autonomy, which means that principals have really little time left for educational leadership, and in many cases even they themselves do not consider it to be their primary task. The importance of leadership for keeping teachers in the profession is another important argument for changing the view of the principal's role.

The role of leadership was especially important during the COVID-19 pandemic. The teachers who felt supported by their school leadership were more satisfied with their jobs and less likely to leave the profession (Marshall *et al.*, 2022).

The decision to remain in the profession is further conditioned by the composition of the student body, with the proportion of socio-economically disadvantaged pupils being decisive. This finding is in agreement with the findings of previous research (e.g. Loeb *et al.*, 2005; Borman and Dowling, 2008).

The finding that older teachers are less likely to leave schools with a higher proportion of pupils with SEN may seem somewhat contradictory. However, the proportion of pupils with

SEN can to some extent indicate the school culture and shared goals. In the Czech Republic, an inclusive reform was launched in 2016, and schools approached it very differently. Some have identified themselves with the goal of providing quality care to every child, while others try to discourage students with SEN in various ways. It is possible that the proportion of pupils with SEN speaks to some extent about the approach of the management and the teaching staff to the teaching profession. It is possible that in schools with a higher proportion of pupils with SEN, teachers see more of the meaning of their work. Several studies showed that the enduring commitment of long-serving teachers to their profession can largely be attributed to altruistic and intrinsic motivations (Chiong *et al.*, 2017; Arthur and Bradley, 2023). In any case, this hypothesis requires further investigation.

School resources also proved to be a statistically significant predictor of the intention to leave the profession. This indicator, however, is related to working conditions, which were proved in previous research to be an important predictor of leaving the profession (e.g. Kemmerer, 1990; McDonald, 1999; Borman and Dowling, 2008; Buchanan, 2010; Skaalvik and Skaalvik, 2015). The question also inquired about premises. Given that Czech basic schools have recently been facing overcrowding because of the demographic wave, this may be a factor influencing teachers' current decision making. Teachers' perception of school resources might have been influenced by higher demands during the COVID-19 pandemic.

The only policy indicator, school innovativeness, also proved to be statistically significant. Thematically, it is closely related to educational leadership, as it expresses the school's efforts to improve its work, which are usually dependent on the school director's priorities.

5. Limitations

The limitations of the study lie in the fact that this is a secondary analysis. The questionnaires were not designed in accordance with the aim of our study, and so the variables were constructed from existing data to best fit our chosen framework. This might be one of the reasons why the Nagelkerke *R* Square shows that the model is relatively weak (it explains a rather small part of the variance of the dependent variable). However, this is probably also due to the fact that a number of personal reasons and circumstances contribute to the decision to leave the teaching profession.

Another limitation might be the fact that the questionnaire was administered during the COVID-19 pandemic. The extra workload during the pandemic might have influenced teachers' perception of their profession and therefore it would be useful to repeat the survey in the post-pandemic era. However, the examination of factors affecting the retention of novice teachers amid the COVID-19 pandemic in Canada revealed that while teachers expressed dissatisfaction with the circumstances created by the pandemic, their discontent did not extend to their perception of the teaching profession (Gunn *et al.*, 2023).

6. Conclusions

An analysis using data from a teacher survey following the TALIS 2018 international survey confirmed the importance of personal, school, and external/policy factors identified in the framework created by Nguyen and Springer (2021) and validated in other education systems for retaining teachers in the profession. In addition to salary, school equipment, and the composition of the student body, educational leadership was particularly important. Our study provides another important argument for strengthening the attention paid to the quality of principals and their preparation for school leadership.

Notes

1. See Eurostat: <https://ec.europa.eu/eurostat/documents/4187653/7825811/Teachers+Day+2017+graph+by+age/4e645898-48d0-4bf5-93a3-d74c8b1042dc?t=1507016365598>
2. CZ.02.3.68/0.0/0.0/19_076/0016404
3. Data was not linked at the level of individual teachers, but at the level of individual schools; the research was longitudinal at the school level.
4. PISA-link included schools educating fifteen-year-old students, which means, in the Czech education system, basic schools with the lower secondary level providing compulsory education (ISCED 2) and upper secondary schools offering three different tracks: an academic track (leading to tertiary education, ISCED 3A), a technical track (combining vocational and general education and allowing transition to tertiary education, ISCED 3A), and a vocational track (leading directly to the labour market, ISCED 3C).
5. The retirement age is currently being raised in the Czech Republic. For men aged 58 and childless women, the retirement age is set at 64 years and eight months. For women, the retirement age decreases with the number of children, the lowest being for women with five or more children (60 years and eight months).
6. First, a two-level model was chosen because the teachers were not randomly selected from the entire population, but were selected from a preselected sample of schools. Thus, the variables characterising schools are common to teachers working in the same school. Because differences between schools explained only 2% of the variance in the dependent variable (intention to leave the teaching profession), we ended up using only a one-level model. The one-level and two-level models provided essentially the same results.
7. <https://www.oecd.org/education/school/talis2018questionnaires.htm>
8. Teacher Questionnaire (TQ), Q40: Control over the following areas: *determining course content; selecting teaching methods; assessing students' learning; disciplining students; determining the amount of homework to be assigned*. The factor explained 62.2% of the variance.
9. TQ, Q49: *Teachers and students usually get on well with each other; Most teachers believe that the students' well-being is important; Most teachers are interested in what students have to say; If a student needs extra assistance, the school will provide it; Teachers can rely on each other*. The factor explained 57.5% of the variance.
10. TQ, Q53: *I enjoy working at this school; I would recommend my school as a good place to work; I am satisfied with my performance in this school; Overall, I am satisfied with the teaching profession*. The factor explained 61.4% of the variance.
11. TQ, Q33: *How often do you exchange teaching materials with colleagues?; How often do you engage in discussions about the development of learning?; How often do you work with other teachers in this school?; How often do you attend team conferences?; How often do you take part in collaborative professional learning?* (scale 1 – never – 6 – once a week or more). The factor explained 41.6% of the variance.
12. TQ, Q51: *I experience stress in my work; My job has a negative impact on my mental health; My job has a negative impact on my physical health*. The factor explained 72.8% of the variance.
13. Principal Questionnaire (PQ), Q22: *Supporting cooperation among teachers to develop new teaching practices; Ensuring teachers take responsibility for improving their teaching skills; Ensuring teachers feel responsible for their students' learning outcomes* (scale 1 – never or rarely – 6 – very often). The factor explained 65.9% of the variance.
14. PQ, Q17 B, Q17 C, scale 1 – none – 5 – more than 60%.
15. PQ, Q29: *Shortage or inadequacy of: instructional materials (e.g. textbooks); digital technology for instruction; library materials; instructional space (e.g. classrooms); physical infrastructure*. The factor explained 46.2% of the variance.

16. TQ, Q32: *Most teachers strive to develop new ideas for teaching; Most teachers are open to change; Most teachers search for new ways to solve problems; Most teachers provide practical support to each other.* The first factor explained 75.3% of the variance.
17. The highest correlation is 0.651, between relationships and job satisfaction. The other correlations generally range between 0.1 and 0.3.
18. <https://www.oecd-ilibrary.org>

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Appendix

	N	Minimum	Maximum	Mean	Std. Deviation
Intention_leave	1,212	0.00	1.00	0.14	0.34
Age	1,230	20.00	58.00	43.45	9.67
Satisfaction_salary	1,214	1.00	4.00	2.31	0.76
Satisfaction_performance	1,212	1.00	4.00	1.66	0.51
Autonomy	1,230	-1.05	0.90	-0.07	0.31
Relationships	1,230	-1.29	1.36	0.02	0.42
Job satisfaction	1,230	-1.23	1.05	0.05	0.40
Cooperation	1,230	-0.91	1.09	0.19	0.40
Stress	1,230	-0.92	1.08	0.06	0.42
Instructional leadership	1,160	-2.46	2.42	0.17	0.89
Students_SEN	1,160	1.00	3.00	2.26	0.49
Students_ses_disadvantage	1,160	1.00	3.00	1.80	0.61
Shortage equipment	1,160	-1.26	1.99	0.06	0.90
Innovations	1,230	-1.34	1.00	0.09	0.41

Source(s): Author's own work

Table A1.
Descriptive statistics of
the variables used in
the analysis

Corresponding author

Jana Straková can be contacted at: jana.strakova@pedf.cuni.cz

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