

Changes in the Spatial Distribution of Elementary Schools and Their Impact on Rural Communities in Czechia in the Second Half of the 20th Century

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This article addresses the changes in the spatial distribution of elementary schools in Czechia in the second half of the 20th century and the consequences of these changes on the functioning of rural communities. The spatial distribution of elementary schools, the shape of their catchment areas, and the regional and local communities connected with these schools are influenced by a wide variety of general processes similar to those in the majority of developed countries. We find decreases in the number of elementary schools, along with a concentration of elementary education provisions, in larger population centers. In Czechia the primary phase of this process occurred during the 1970s as a result of the implementation of a unique totalitarian policy of centrally directed settlement development. The effects of school closure on rural communities in peripheral areas fail to show any fundamental difference between Czechia and other developed countries, although the unique features of the former communist system are expressed in the time and forms of school closures and the resulting spatial patterns of school distribution.

Contemporary economically developed countries seek to make education accessible to the broadest possible spectrum of individuals for a variety of reasons. For example, education is considered to be a “driving force” of development (Lundvall & Johnson, 1994), “raw material” for the operation of the economy, and a vital element of culture, particularly its transfer and reproduction (Butler & Hamnett, 2007). In spite of the professed value placed on education by national governments, struggles still occur regarding inequalities in access.

Differences in access to education result in part from the social and economic mechanisms that create societal as well as territorial differences (Hampl, 2005). The wide array

of social inequalities in access to education is frequently debated within the social sciences (Halsey, Lauder, Brown, & Wells, 1997; Prokop, 2005; Warrington, 2005), as well as in professional practice (e.g., Florián, 2009). Discrimination of various kinds (e.g., ethnic, racial, gender) is very often the main topic of this debate. However, territorial inequalities in access to education are discussed far less frequently, despite the facts that these differences reach greater extremes, and attempts to resolve them are even more limited (Hampl, 2000).

Educational provision is typically concentrated in settlement centers within the higher levels of the settlement hierarchy. In general, there are more types of educational institutions in towns and cities (from primary schools to universities), whereas small rural settlements frequently have only elementary schools. Inhabitants of core urbanized areas thus have better access to education than inhabitants of remote rural peripheries. Although (public) transportation enables people to overcome larger distances and makes services accessible that would otherwise be unattainable for inhabitants of various localities, this access often comes only at the cost of higher financial expenses and time commitments (Bell & Sigsworth, 1987; Kučerová, Mattern, Štych, & Kučera, 2011).

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Professionalization of education requires increased organization of training in larger schools, involving a higher number of diversely specialized teachers, classrooms, sports facilities, and so forth. Consequently and although this has not been objectively confirmed (Ribchester & Edwards, 1999), small rural schools have, in contrast to the majority of urban schools, acquired the negative image of institutions that are poorly equipped, in terms of materials and technology, and staffed by less qualified workers (Sherman & Sage, 2011). The depopulation of many rural areas and low fertility rates in developed countries make it difficult for many small schools to fill their enrollment capacity. Moreover, in times of economic recession, critics often point to rural schools' lack of economic efficiency coupled with the need to reduce government expenditures (Åberg-Bengtsson, 2009; Kearns, Lewis, McCreanor, & Witten, 2009). Last but not least, parental employment, which is generally oriented towards larger population centers, impacts the school commuting practices of children. Parents often prefer to place their children in urban schools because of their proximity to their workplace. All these factors contribute to the mass closure of small elementary schools in rural areas and to the increase of commuting distances to schools, even for very young children (Kučerová et al., 2011; Ross, 2007).

A number of authors have attempted to describe the impact that these processes have had on rural areas in Western Europe, the United States, and other economically developed countries (e.g. Bell & Sigsworth, 1987; Corbett, 2009; Dostál & Markusse, 1989; Kearns et al., 2009; Kvalsund, 2004a; Lyson, 2002; Nitta, Holley, & Wrobel, 2010; Ribchester & Edwards, 1999). So far, however, researchers have done little in the way of international comparison (Hargreaves, Kvalsund, & Galton, 2009).

Czechia¹ (see Figure 1) is one of the countries in Central and Eastern Europe that was ruled by a communist

¹ Every country has, in addition to its official political name, also an official geographical name. A political name reflects the form of the governmental system and is used on official occasions. A change of governmental system, however, is often accompanied by a change to the country's political name. (For example, France's political name is presently the French Republic, whereas it used to be the Kingdom of France in the past.) In most cases, a country's geographical name is shorter than its political name, mostly consisting of one word. Exceptions consisting of more than one word, such as the United States of America, do exist. Moreover, in comparison with a political name, a geographical name symbolizes the historical continuity of certain territory. Czechia is the geographical name for the territory that is now managed by the state with the political name Czech Republic. The Czech Republic was created in 1993 through the partition of Czechoslovakia (see Figure 1; Krejčí, 2008; compare Allen and Sutton, 2012; Czechia, 2011; Marston, Knox, & Liverman, 2011; Murphy, Jordan-Bychkov, & Bychkova-Jordan, 2008).

dictatorship during the second half of the 20th century (in the Czech case, between 1948 and 1989). Thus, economic and political conditions in the country were temporarily different from those in states that remained democratic for the whole period. Socio-economic and socio-geographical processes in Czechia were carefully directed, supported or limited by the regime (e.g., attempts to negate spatial effects in the distribution of economic activities or to influence population growth in certain settlements). Therefore, development during this period is often spoken of as “unnatural” and, subsequent to the renewal of independence and democracy and the establishment of a market economy after 1989, the so-called “corrective” post-communist transformation occurred (Hampl, 2005). Society, with its internal and spatial organization, has returned to “normal”—to trends and processes that began prior to World War II.

Transition from communist to democratic systems raises interesting questions regarding the development of the school system as a basic instrument for dissemination and reproduction of knowledge, skills, and attitudes. The case of Czechia allows the study and comparison of the functioning of the school system under different political conditions, as well as the assessment of its change. Special attention should be given to changes in elementary education because elementary education shapes people's life chances from early childhood, and is compulsory for all. Elementary education should thus be equally accessible to the majority of inhabitants living in a given territory, whatever their societal position or place of residence (Solstad, 1997). In other words, ideally elementary education should be spatially distributed as uniformly as possible.

The purpose of this article is to discuss the most significant geographical processes connected with changes in the spatial distribution of access to elementary education in Czechia during the second half of the 20th and at the beginning of the 21st century. The article focuses, in particular, on the changes in access to education in disadvantaged areas that were most affected by the closure of elementary schools: rural peripheral areas (Kvalsund, 2004a; Kučerová & Kučera, 2009b). However, to understand the causes and consequences of school closures in such areas, it is necessary to comprehend general changes in the geographic organization of schools. Thus, the development of the spatial pattern of elementary schools in the whole of Czechia is presented at first (for a more detailed discussion, see Kučerová & Kučera, 2009a). Second, the effects of the identified changes in school patterns are introduced from the perspective of local residents in selected rural peripheries. Results of the study are then compared with the situation as it was reported by researchers from countries that have remained democratic for the entire observed period.



Figure 1. Position of Czechia within Europe.

The Geographical Aspects of Education

Research into changes in spatial distribution of schools and the consequences of these changes, including the application of findings in practice (school policy, regional development, community planning), has scarcely been developed in the field of geography. Moreover, any geographical research that has been conducted on these topics has focused primarily on urban space and only in some exceptional cases on rural areas (see, e.g., DeYoung, 1987; Walker & Clark, 2010). Two questions arise from these observations. The first concerns how to awaken in geographers a greater interest in studying the spatial aspects of education, while the second concerns how rural areas and the specific problems of rural development might be incorporated into this area of research.

In one fundamental overview of geographical knowledge—the *Dictionary of Human Geography*—Johnston (2000) defines “geography of education” as a

scientific discipline consisting of “the study of spatial variations in the provision, uptake and outputs of educational facilities and resources” (p. 203). Although a number of authors have claimed to conduct research within this field (e.g., Butler & Hamnett, 2007; Hones & Ryba, 1972; Marsden, 1977; Wahla, 1988), or the equivalent “geography of schooling” (Kearns et al., 2009), only a small amount of research has been published. Issues concerning the spatial aspects of education have been more frequently mentioned within the framework of other topics of geographic research, such as regional development (Dostál & Markusse, 1989; Selman, 2001), development of rural areas, problems of peripheral areas (e.g., Jančák, Havlíček, Chromý, & Marada, 2008; Pacione, 1984; Perlín, Kučerová, & Kučera, 2010) or, in contrast, development of metropolitan and core areas (Hamnett, 2003).

The existence of geography of education has not been overlooked by geographers alone. In general, neither specialists nor the general public typically consider geography

to be a discipline that should contribute to discussions on issues of education. Consequently, geographers are rarely involved in the formation of education policy, although such policies frequently deal with clearly geographical topics, such as the spatial distribution of school facilities (Marsden, 1977). Pedagogy has long been viewed as the core discipline of education research. It primarily examines issues directly related to the education process, including its aims, organization, evaluation, quality of textbooks, methods, and didactics (for examples of Czech research on these topics, see Brockmeyerová-Fenclová, Čapek, & Kotásek, 2000; Knecht et al., 2008; Řezníčková, 2009; Skalková, 2007; Vališová et al., 2007), as well as activities within educational institutions, such as school management, interpersonal relations, and life cycle of participants (see, e.g., Bacík, Kalous, & Svoboda, 1998; Pietarinen & Meriläinen, 2008), or phenomena directly connected with the existence of educational institutions, including educational policy and parent-school relations (see, e.g., Sedláček, 2008).

As a result of ongoing globalization, however, still more complicated relationships among various segments of education systems and increasing numbers of stakeholders in the field of education are emerging, and pedagogy is often confronted with the necessity of resolving problems in their regional context. Pedagogical research is, therefore, experiencing a gradual but purposeful transition away from “locking itself up in the classroom and school” (Kvalsund, 2004a, p. 49) to taking greater interest in the spatialities of educational phenomena (Gulson & Symes, 2007). In addition to its focus on studying activities within specific educational contexts, the attention of pedagogical research is shifting toward questions of external relationships, such as between schools and stakeholders in their communities (e.g., Trnková, 2009; Clark, Lambert, Park, & Wilcox, 2009). At the same time, scholars in disciplines such as sociology and anthropology have begun to make significant contributions to research on the broader conditionality of education. For example, the sociology of education has sought somewhat successfully to include geographical themes such as school and place, school and community, and unequal access to education (e.g., Halsey et al., 1997).

Theorization, methods, and approaches in geography are also evolving. In numerous publications on education and schooling, a trend may be observed that can generally be labeled as a gradual shift from studies of determination regarding the form of schooling (Marsden, 1977) and of spatial structures of various aspects of education (Wahla, 1988) toward issues focusing on education in particular locations (Warrington, 2005). On the one hand, more frequent focus on territorial detail leads to convergence between pedagogical, sociological, and geographical research, which should in turn lead to support for improved communication among these disciplines and to better mutual comprehension.

On the other hand, fragmented research focused on disparate school facilities and their unique contexts cannot result in all-inclusive comprehension of the complex operation of a large educational system and of its interactions with other spheres of society. Locally based research also only partly supports decision making in public administration and formulation of education policy. Although the above mentioned convergence of research focus in pedagogy, sociology and geography may be welcomed, the unique contributions of these disciplines should not be forgotten. The often excessive focus of geography on micro-regional studies and its tendency to approximate topics from pedagogy and sociology of education could not only weaken the position of geography as a discipline, but also impoverishes educational research. Instead of focusing solely on the study localities, geographical contributions to educational research could be also based on its more traditional research themes such as: the investigation of regions, the study of the spatial organization of phenomena, and their external interactions. Instead of supplanting one another, the above mentioned disciplines (pedagogy, sociology of education, and geography) should complement each other.

To a certain degree, the object of research, along with preferences for certain methods, contribute to the dominance of urban topics in research on education. As previously mentioned, disciplines such as pedagogy and sociology of education study relationships within schools or within the framework of a certain social systems (e.g., an education system). In contrast, geography focuses on interactions between objects and subjects in space. Considering the topic of inequality, pedagogy and sociology explore social inequalities and differences (e.g., socio-economic, ethnic, gender, etc.), while geography examines territorial differences (e.g., inequalities in spatial distribution). Urban environments, primarily studied in pedagogy, arguably provide more opportunities than rural areas for studying social inequalities and other issues. A great intensity of interactions takes place in a concentrated space (i.e., a city), and in this context one can find extreme socio-economic differences that easily lead to discrimination and conflict (Dyson, 2008). Rural areas are sparsely inhabited, characterized by great distances between settlements. Thus, they face different problems (even in education) than cities and metropolitan areas.

With the transformation of the spatial organization of human society, demographic changes, and the decreasing number of inhabitants in rural peripheral areas, local elementary education inevitably faces serious threats to its future development and financing. The causes of the changes in these areas are often located elsewhere, however, so the development of spatial pattern of rural schools cannot be understood without monitoring of changes in the spatial distribution of all elementary schools. The example of

Czechia demonstrates a significant lack of knowledge in this field. Before the research initiated by Kučerová and Kučera (2009a), regional differences in the provision of elementary education and its broader conditionalities throughout all of Czechia were last presented in the *Atlas of the Czechoslovak Republic* (Pantoflíček, 1935). This article builds further on the foundation of the previous above mentioned study published by its authors and expands beyond the research of dominant trends in school spatial patterns to explore the impact of school closures on the development of rural peripheries, as perceived by local residents. In doing so, we attempt to combine an approach that places the process of rural school closure into its broader context with an approach that seeks a deeper understanding of the issue using the example of a territory with a high concentration of the given phenomenon—closed schools.

Research Organization and Methodology

The present study on changes in the spatial pattern of elementary education provision in Czechia and its impact on local rural communities consisted of two methodologically different phases. In the first (main) phase of research, we completed a quantitative analysis of changes in the geographical organization of the elementary schools during the second half of the 20th century at the national level. This process made it possible for us to identify and characterize the basic geographic processes in the development of spatial patterns of elementary education provision in the entire territory of Czechia over the past 50 years. The selection of such a long time frame was based mainly on the knowledge that during this period a large number of elementary schools in Czechia were closed, especially in rural areas (Trnková, 2006). However, the quantitative analysis did not allow for a discussion of the actual effect of school closures on everyday living, so we conducted complementary qualitative research to illuminate the impact of the changes on living conditions and the function of local communities in rural peripheries. In this second research phase, we engaged residents in affected localities in semi-structured interviews in which they shared their perception of events and changes that occurred after the closure of their local school.

The completion of the first phase of research was limited by the availability of relevant statistical data and by the time required for gathering such data. Although the analysis covered a very long time period, only several statistical publications providing data on the number of schools in basic administrative units, such as municipalities—namely the *Statistical Lexicon of Municipalities of Czechoslovakia 1965* (Central Commission of People's Control and Statistics and the Ministry of the Interior, 1966), the *Municipalities in Statistics 1990* series (Czech Statistical Office, 1991), and the online *Database of Statistical Data*

on Towns and Municipalities (Czech Statistical Office, 2004). In general, the data from these sources were based on the results of the preceding population censuses and provided information about schools in the whole territory of Czechia at four points in time: 1961, 1976, 1990, and 2004. However, information about the presence of a school in a particular municipality often appeared to be incorrect. This was most apparent in the case of the *Statistical Lexicon of Municipalities of Czechoslovakia 1965*. In this resource, information on schools was based on reports issued between 1961 and 1965 by individual chairmen of local public administration. The data published in the lexicon, therefore, do not represent the situation in the same year for all of the municipalities. Moreover, the statistical lexicon does not provide information on the total number of schools in each municipality, but only on the presence or absence of a school in a given unit. The comparison of the data from the lexicon with the data on the number of schools in 1976 revealed that in 1961 there was more than one school present in many of the municipalities. Therefore, information on the presence of a school in the municipality provided in the lexicon had to be compared with the data on the number of schools in larger territorial units or corrected with the use of archival sources.¹

On the basis of the data provided in our statistical sources, we constructed a list of almost 5,500 settlements in which an elementary school existed during at least one of the four designated time frames. In the next step, the list was integrated into a GIS database of Czech municipalities. Considering the amount of territorial-administrative changes that occurred during the observed period (consolidation of municipalities and in some cases, especially after 1989, their division into new units—see, e.g., Perlín, 2006), the *Statistical Lexicon of Municipalities of the Czech Republic 2003* (Czech Statistical Office, 2003) was used to verify the location of the listed settlements in appropriate municipalities. (The boundaries of the municipalities were defined as of January 1, 2003.)

The result of this process of data collection and organization was a database that allowed retrospective historical comparison of the number of elementary schools for all the municipalities in Czechia in four distinct years: 1961, 1976, 1990, and 2004. The database also included information on school type, which was crucial for the discussion of geographical processes connected with the changes in the elementary school pattern. In Czechia, primary school attendance is, according to the Act No. 561/2004 Coll., on Education, compulsory for nine years and is ensured through either large, “complete” elementary schools, which contain all nine grade levels, or by smaller

¹ See Kučerová and Kučera (2009a) for a larger explanation of the limitations of these data sources.

“incomplete” schools² in which fewer grades are taught (normally 1st to 5th grades, but sometimes fewer) and whose students must subsequently commute to a larger nine-year school to complete their elementary education. In addition, classes in many “incomplete” schools tend to be small, and pupils in one or more grades may be taught in the same classroom (for more details see Trnková, 2006).

For the purpose of subsequent cartographical analyses, it was necessary to find a way to distinguish between complete elementary schools and incomplete schools and indicate the total number of schools in each municipality at the same time in one map. Especially at the beginning of the observed period, a large portion of Czechia’s municipalities had more than one elementary school; generally, there was one school in each of the larger settlements in each municipality. Of course, some of these schools were complete schools whereas others were incomplete. Regional significance (in the sense of the size of their catchment area) of those two types of schools is not entirely comparable. For example, the closure of a complete school presents a more fundamental change than the closure of a small, incomplete elementary school. Complete schools effect larger commuting regions with more people and pupils, whereas a small incomplete school’s importance is often only local. Because of investments needed for its establishment, opening of a complete school is usually not perceived as temporary solution, and a complete school has thus also more power and opportunities for its own development. Thus, to emphasize the difference between complete and incomplete schools, a double weight was assigned to complete schools (i.e., the number of such schools in each municipality was multiplied by two).³

The spatial distribution of elementary schools was also investigated in terms of differences between rural and urban locations. As was mentioned above, the conditions under which rural and urban schools function are not entirely comparable. For this reason, Czechia’s municipalities were divided into two groups: rural and urban. For the purposes of our research, municipalities were defined as rural when they had fewer than 3,000 inhabitants in the final year of

² Labeling schools as “complete” and “incomplete” is the authors’ terminology and not an official classification. The terms were derived from the popular Czech expression “complete nine-year elementary school,” meaning that the entirety of a compulsory elementary education could be finished there. By extension, elementary schools in which fewer than nine grades are taught are “incomplete.”

³ This approach is a purely normative mathematical solution. Any other number could be used. The idea about the usage of the number 2 stems from the fact that complete elementary schools have two levels: first, comprising 1st to 5th grades (ISCED 1 education level), and second, comprising 6th to 9th grades (ISCED 2 education level). Thus, the schools with both levels were treated as twice as big and important than schools with one level.

the observed period (2004). This population limit was selected on the basis of the *Act No. 128/2000, Coll., on Municipalities*, according to which only a municipality with more than 3,000 inhabitants can become a town or city. The use of this criterion was also in line with the opinions of other Czech authors who have applied the same population limit to define rural municipalities in their studies (see, e.g., Hampl & Müller, 1998; Perlín, 2010).⁴ However, it should be noted that a wide variety of views exists concerning definitions of rural areas, and there is no universal definition (see, e.g., Halfacree, 1993; Hargreaves et al., 2009).

During the second research phase, conducted on the microregional level, special attention was given to areas that appeared, in terms of intensity of school closures, to be most disadvantaged and least likely to experience future development, i.e. where a closure of a school could be expected to have a significant negative impact on the community life. Selection of case study sites for the investigation of the consequences of local elementary school closures was organized in four steps. First, six regions were identified that could be considered rural peripheries (compare Jančák et al., 2008; Musil & Müller, 2008) and in which a high number of elementary schools were closed during the observed period. The selected regions thus represented areas in which the reduction of the total number of elementary schools was most intense. Second, potential localities (settlements) within all six regions were identified. To be selected, the localities had to comply with these criteria: a) a typical (representative) instance of the situation in the whole region; b) a part of a rural municipality; c) mutually comparable in terms of the total number of inhabitants; d) a place with a closed incomplete elementary school (to ensure similar importance of the closed school in different localities); e) a part of a municipality without any other elementary school except the closed one; and f) easily accessible for the researchers. Third, the mayors of the preselected municipalities, being familiar with the situation in their localities, were asked to recommend for interviews other individuals with direct experience with the closure of the local school. Fourth, in response to the willingness of mayors and other prospective participants to engage in the inquiry, one case study site in each of the six regions was selected.

In these localities individual in-depth semi-structured interviews were conducted with one or two residents. The interviewees included former teachers, students, or mayors who were in office when the school was closed, a local historian, and the current owner of former school building.

⁴ In addition, in some other European countries settlements or municipalities with fewer than 3,000 inhabitants are often considered as rural (see, e.g., Dowling, 2009).

For reasons of anonymity, all the individuals mentioned in this article have been assigned pseudonyms. During each interview, we asked these questions:

1. What especially did the local school mean for you?
2. Did the school have any other functions in the municipality than education? If yes, who or what is now fulfilling these roles?
3. Could you please describe how, when and why the school was closed?
4. Did any other changes occur that were in your opinion connected with the closure of the school (e.g., closure of the local store, population aging, out-migration)?
5. Has your or your children's life changed after the school was closed? How?
6. To where do the children commute to school today?

The semi-structured interview seemed to be the best method because it enabled both researchers and respondents to react immediately to any ambiguities during the interview while also allowing respondents to freely direct the topic of the interview in any direction that they considered important and relevant. Information received from the respondents was verified by field observations and by the study of local written sources (e.g. municipal and school chronicles).

Significant Geographical Processes in the Elementary School Pattern

Before the evaluation of the results of our analysis of developments in the spatial distribution of the elementary schools in Czechia during the second half of the twentieth century, a certain unique characteristic concerning the dominant institution behind the establishment of schools, i.e. the municipalities, should be pointed out. The territory of Czechia, approximately the same size geographically as the state of Mississippi, nonetheless has a highly fragmented settlement system containing approximately 12,000 physically separate settlements. However, these settlements are administered by 6,250 municipalities, the lowest-order, self-governing units within Czechia. This number is unique even in European conditions with only France having a similarly fragmented administrative system (HAMPL & MÜLLER, 1998). Due to this fragmented pattern, more than a quarter of Czechia's municipalities have less than 200

inhabitants. Even these very small municipalities have their own elected municipal board, ensure the implementation of public administration for their territory and can, among other things, establish an elementary school within their territory. The high number of autonomous self-governing units, therefore, determines, to a degree, the high number of elementary schools—4,125 during the 2009-2010 school year (Institute for Information on Education, 2011). By that time, thirty percent of these schools had less than 50 students, while only a tenth had more than 500 students. Moreover, a dominant portion of the small (rural) schools are small-class schools, in which students from multiple grades are taught in the same classroom (Trnková, 2006). Municipalities operate an impressive 90% of all elementary schools in Czechia. Considering the remainder, there are several dozen (altogether about 100) private and church-owned (primarily Roman Catholic) schools. The relatively small number of private elementary schools is explained mainly by the fact that during the communist period no type of educational institution that was not owned and operated by the state was allowed to exist, and after 1989 most of the by then state managed schools were assigned to municipalities. Since entering into education, the private sector has focused more on secondary and applied technology schools.

The observed changes in the spatial pattern of elementary schools in Czechia can be characterized by two processes: reduction and territorial concentration. The most important from all of the identified geographic processes was the concentration of elementary education provision into urban centers which was accompanied by the closure of many small rural schools and by the opening of very few new complete schools in urban areas. While at the beginning of the observed period, in 1961, there were approximately 8,000 elementary schools in Czechia (Federal Statistical Office, 1966), today less than half remain. In terms of access to elementary education, these changes have resulted in a significant increase in the polarization of space and in subsequent increases in territorial—and, to a degree, even social—inequality, disadvantage, and marginalization of certain parts of the settlement system. This is especially evident in the growing polarity between urban and rural municipalities and between core and peripheral areas.

In the middle of the 20th century, there was a relatively high density of elementary schools characteristic for the territory of Czechia (see Figure 2) and incomplete schools clearly dominated. At that time, nearly every municipality had its own school. Figure 3 demonstrates that, after this moment, a moderate increase in the number of schools occurred almost exclusively in urban municipalities or in generally more populated settlements. In contrast, rural areas witnessed a dramatic reduction in the absolute number of schools, in many cases by more than a half. The number of incomplete elementary schools fell quickly throughout

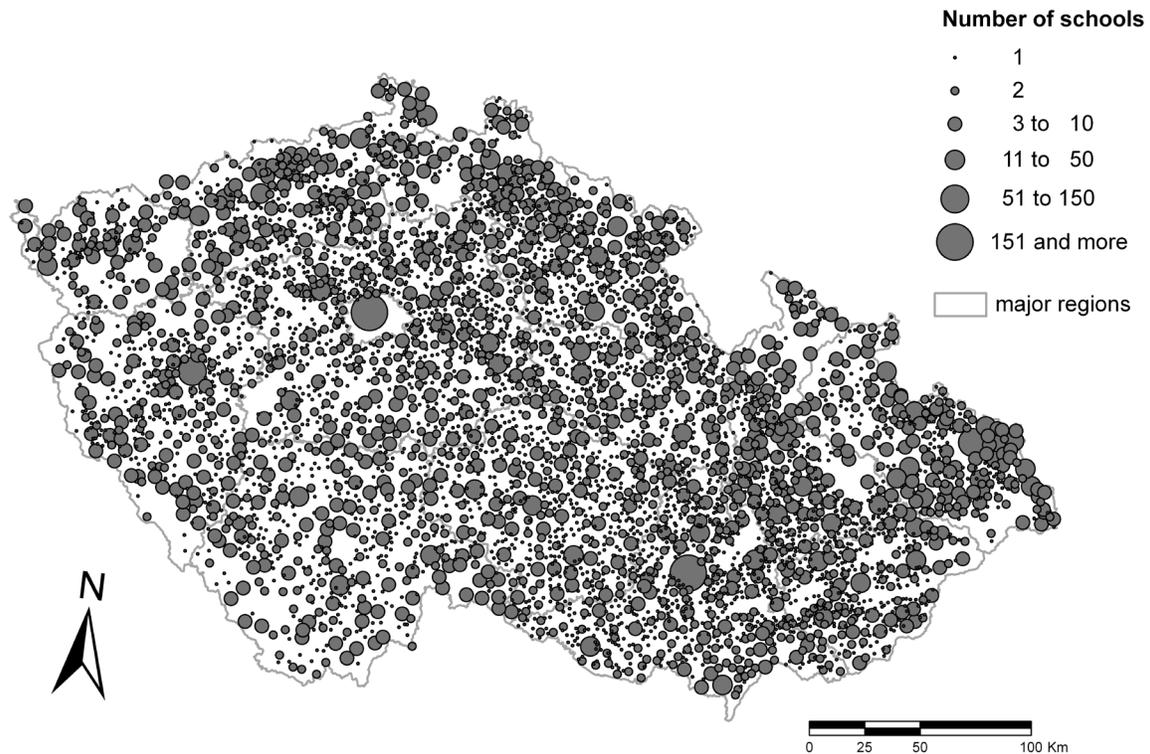


Figure 2. Total weighted number of elementary schools in Czech municipalities, 1961 (Source: Authors' calculation based on the data published in the *Statistical Lexicon of Municipalities of Czechoslovakia 1965*, published by Central Commission of People's Control and Statistics and the Ministry of the Interior, 1966).

Note. Weighted means that, in comparison with incomplete schools, the number of complete schools was multiplied by two. For further details, see Research Organization and Methodology.

the entire observed period (this trend was less pronounced between 1990 and 2004) in urban as well as in rural areas to less than one third of its initial state. In rural areas, a slight decrease in the number of full nine-year elementary schools also occurred. In the opposite, urban areas experienced an increase in complete elementary schools until 1990. In result, the commuting distance to complete elementary schools, which remained in settlement centers (Hampl, 2004), increased, as is evident from Figure 4. Findings published by Kučerová and associates (2011) confirmed that in 1961, 70% of Czechia's territory was located within 3 km by road from the nearest elementary school, whereas by 2004 this figure had already decreased to less than 45%. From more cultural point of view, it is necessary to add that in Czechia it was always taken as normal that the children could reach their school by foot (on the distance approximately up to 4 km). Commuting by other means of transport is more an expression of necessity in the modern era.

Despite elementary school closure over the last 50 years or so, the decline and concentration of schools did not occur in the same manner and with the same intensity throughout

the whole territory of Czechia (compare Figures 2 and 4). On the one hand, there are areas, in which provision of elementary education is concentrated almost exclusively in micro-regional centers and has disappeared from rural space (e.g., most of the sparsely populated territories in the western half of Czechia—compounded in the north by large-scale strip mining of lignite and the existence of a series of industrial cities, in which the region's population is concentrated). On the other hand, school closures exhibited a much lower intensity in the hinterland of the largest cities, areas that are attractive for in-migration (Čermák, 2005) and likewise in the agriculturally productive and intensively settled lowlands of south-eastern Czechia, where a large number of rural settlements are located whose population continues to generate sufficient demand for elementary education.

The processes of school reduction and territorial concentration were ongoing in Czechia practically for the entire observed period, although their dynamics varied over time. According to Kučerová and Kučera (2009a; 2009b), it is possible to define three phases in the development of the

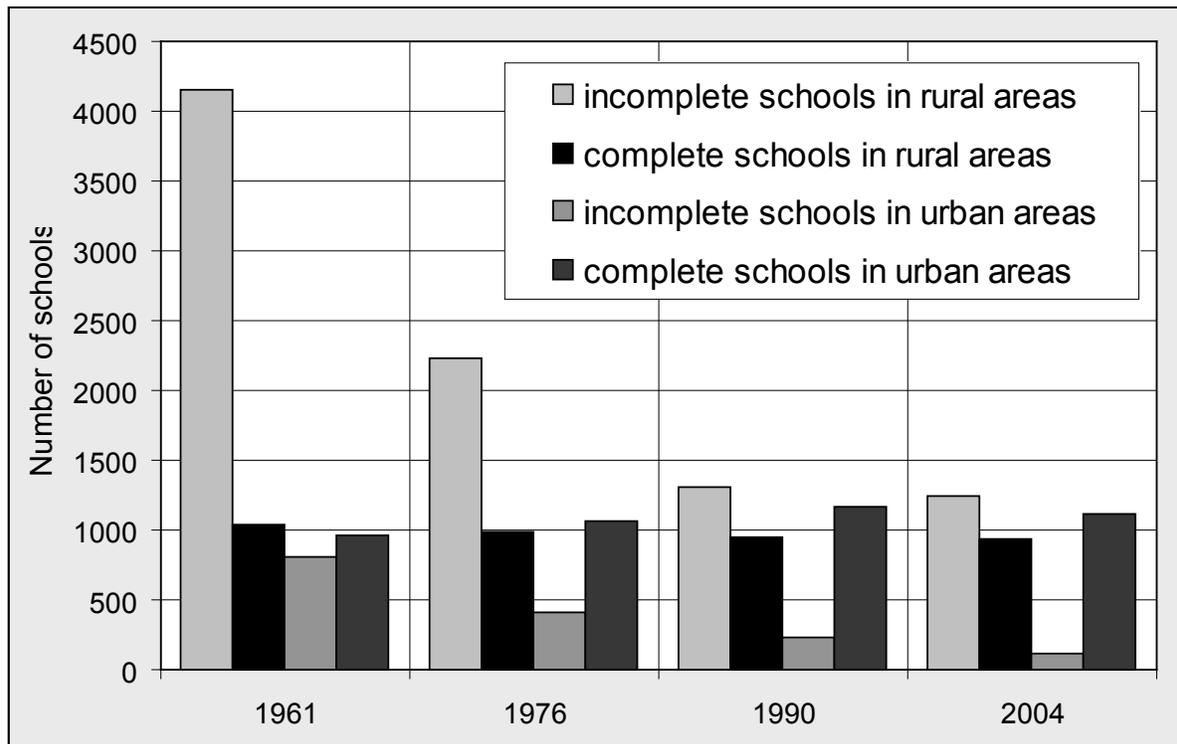


Figure 3. Total number of complete and incomplete elementary schools in rural and urban areas in Czechia between 1961 and 2004, selected years (Kučerová & Kučera, 2009a, p. 135).

Note. For the purposes of our research municipalities that were defined as *rural* had fewer than 3,000 inhabitants. *Complete* elementary schools had all nine grade levels, whereas in *incomplete* schools, fewer primary school classes are taught (1st to 5th grades, or even fewer). For further details, see Research Organization and Methodology.

spatial distribution of elementary schools. The delimitation of those periods was partly determined by the selection of time horizons for which the necessary data were available.

Phase 1: School closures in rural areas (1961–1976): the defining characteristic of this period is extensive closures, primarily of elementary schools with fewer grade levels in rural areas. It impacted all areas of Czechia, but peripheral regions were especially affected. During the first half of this period, particularly long-term “problematic” schools were closed due to either declining enrollments or the unsuitable physical state of buildings targeted for closure (Trnková, 2006). At the same time, the closure of small rural schools led to an increase in the number of full nine-year schools in more populated municipalities. The total number of elementary schools with fewer grade levels fell during this period to approximately half of its initial state in 1961.

Phase 2: The growing educational function of district capitals (1976–1990): the concentration of school facilities into more-populated municipalities continued from the previous period. However, during the second phase this was a determining factor. The capacities of existing schools in cities increased along with the modernization

of old school buildings or with the construction of new buildings. Decreases in small schools in rural areas were more regionally differentiated than during the previous period. From the beginning to the end of the second phase, the number of elementary schools with fewer grade levels again decreased by half. The most dynamic changes in the spatial distribution of schools occurred during the 1970s (Kučerová & Kučera, 2009a), when the so-called nodal system of municipalities was put into place, a policy of the totalitarian regime to centrally direct the development of the settlement system. This system placed all the settlements in Czechia into one of three categories, according to their “significance.” Subsequent policies governing the placement of investments, employment opportunities, service facilities (e.g. schools), new apartment buildings, etc. were based on these three categories. Settlements in the lowest category faced gradual decline (Perlin, 2006) and the schools located there were closed on a massive scale, as decreed by immediately effective decisions from supervisory bodies (within a matter of months or even weeks).

Phase 3: Stagnation (1990–2004): in terms of the developmental dynamics of the spatial distribution of

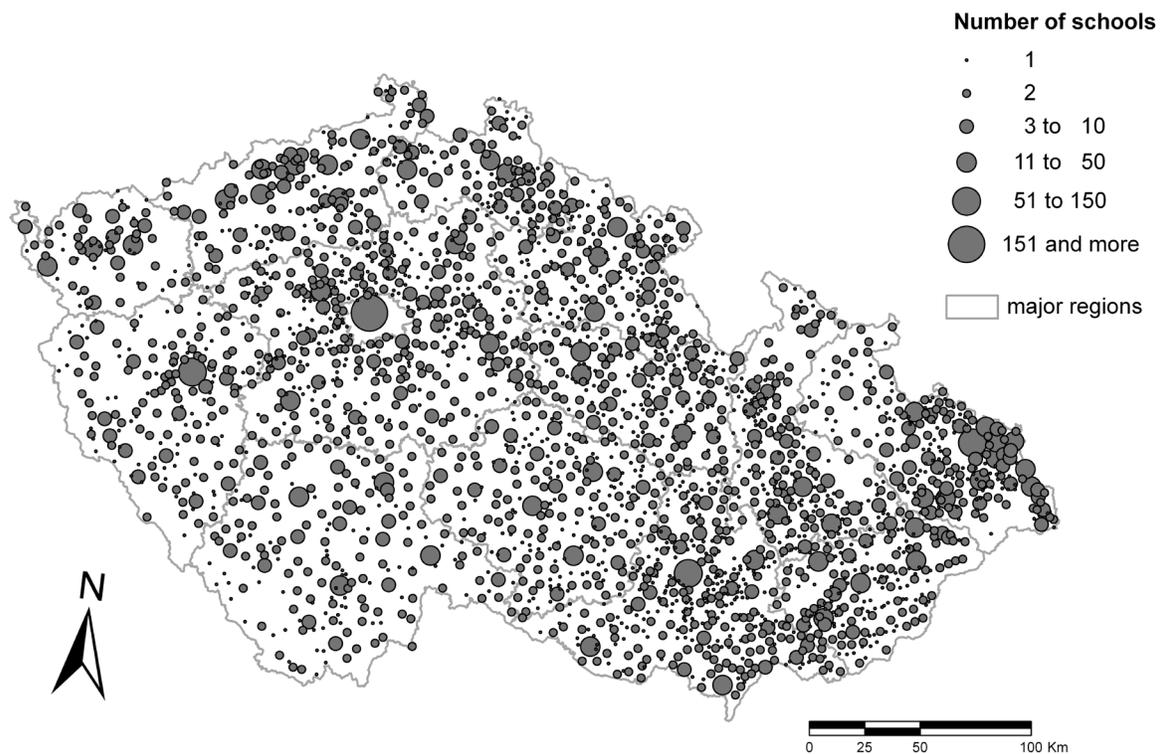


Figure 4. Total weighted number of elementary schools in Czech municipalities, 2004 (Source: Authors' calculation based on the data published by the Czech Statistical Office, 2004, in the *Database of Statistical Data on Towns and Municipalities*.) Note. Weighted means that, in comparison with incomplete schools, the number of complete schools was multiplied by two. For further details, see Research Organization and Methodology.

elementary schools, this period was characterized by stagnation or slight decreases in the number of schools. Resulting from changes in the demographic behaviour of Czechia's inhabitants which led to gradual decrease in the number of children during the period after the fall of the communist regime (Burcin & Kučera, 1996), some nine-year schools in larger cities were closed. In rural areas, the continuing closure of elementary schools with fewer grade levels was observed, due to the ageing of the population and emigration from the Czechia's rural and peripheral areas. In addition, schools were re-established in some of the municipalities where the previous closure of a local school during the totalitarian regime was perceived by new municipality representatives as unreasonable.

Based on the findings of the quantitative analysis, it may be concluded that developments in the elementary school pattern correspond with general changes in the geographical organization of society and are similar with the changes in the spatial distribution of elementary schools as reported by authors describing other national contexts (e.g., Åberg-Bengtsson, 2009; Bell & Sigsworth, 1987; Kearns et al., 2009; Kvalsund, 2004a; Ribchester & Edwards, 1999). Nonetheless, certain unique features of a country with a

different political system are evident. In many democratic countries, decrease in the number of schools in rural areas has, generally, extended over a larger period of time rather than resulting from a series of one-time, centrally-directed measures. Moreover, as a result of early reduction, Czechia did not experience a second significant wave of elementary school closures during the 1990s, as many other countries did (Åberg-Bengtsson, 2009; Karlberg-Granlund, 2009; Kearns et al., 2009).

Effects of Elementary School Closures on Local Rural Communities

If changes in the school pattern in Czechia indeed resemble those which other countries have experienced, then the local level effects of this process should also be similar. Many authors have written about the effects of consolidation and school closure and the research literature does not suggest significant differences among rural areas in developed countries with regard to school closure impacts. A summary of the major findings of studies on school closure in rural areas reveals the following associated problems: the loss of a particular educational

institutions (Karlberg-Granlund, 2009); negative impacts on commuting (Ross, 2007); the loss of a civic facility (Dostál & Markusse, 1989); the loss of a cultural centre and meeting place (Witten, McCreanor, Kearns, & Ramasubramanian, 2001); the loss of a symbol of municipal autonomy and community identity (Lyson, 2002); fewer opportunities for local community members to develop relationship to their inhabited environment (Corbett, 2009; however, see Kelly [2009] for discussion of the importance of “learning to lose”); the loss of employment opportunities (Pietarinen & Meriläinen, 2008); a decline in civic engagement (Sell, Leistriz, & Thompson, 1996); population losses due to out-migration (Hagen, 1992); the loss of social control over the activities of children (Coleman, 1997); a decrease in parental interest in school happenings (Bell & Sigsworth, 1987); and the downsides of the anonymous environments of larger schools (Kvalsund, 2004b).

The vast majority of the above-listed problems are also observed in the case of Czechia (Trnková, 2009; Zemánek, 2003). The most frequent negative impacts of school closures as perceived by local residents include: the increasing social and political marginalization of a given territory and decreases in its development potential, the destabilization of the local community as a consequence of the absence of a closed cultural institution (local school), and the fact that students are forced to commute to a different school in the region (Kučerová, 2010).

Nevertheless, the marginalization of municipalities and even entire regions is not so much a consequence of the closure of a school or a larger number of schools; rather it is the cause of such closures. The overall unfavorable development of a territory, whether economic, social, demographic or cultural, is associated with declining demand for hitherto routine services, either as a result of a decreasing number of residents or their decreasing purchasing power. In this way, the provision of the services in question becomes increasingly more problematic, unprofitable and organizationally challenging. This unavoidably leads to the implementation of certain measures, most frequently the cancellation or limitation of a given service in the locality. Long-term low numbers of students are often perceived as the only acceptable argument in justifying the closure of a local school. As was mentioned by Mr. Bláha, the 55-year-old son of the former teacher in a local rural school: “Of course, everybody had to catch on to the idea that it’s not possible to have a school where there aren’t many children.” However, during the communist period, authorities often also closed schools without giving regard to the relatively high numbers of their students. Mrs. Čáp, a former teacher, noticed that “it’s true that those other schools, in those neighbouring villages, they closed them with pretty high numbers of kids.”

The closure of services leads to the further local marginalization and the deterioration of living conditions, in accordance with the principle of cumulative negative mechanisms (so-called backwash effects) suggested by Myrdal (1957). During this developmental phase, the majority of residents perceive the unfavorable position of their own territory. They recognize that a great number of the territory’s characteristics are disadvantageous and are more sensitive to its failures. Perceived marginality becomes very high and closed facilities of service providers, including elementary schools as symbols of such development, only add to such perceptions. Facing this situation some residents even start to think over the possible leaving of the village. Mrs. Dvořák, former member of local administration and an active representative of community life, described this situation as the one in which “everybody had to think twice about whether to stay in the village. They told themselves: ‘Well, pretty soon, there won’t even be a store here. The school is already gone, right, they’ll tear down the pub and pretty soon there won’t even be a dog to bark here!’” This comfortless situation is a dominant characteristic of the majority of peripheral areas today. For some residents such development may lead only to negative ends. Mr. Gabriel, a native and former mayor of his municipality, complained that “the kids are gone. Everything’s empty. It’s a shame! I don’t know... how it will look here after some time!” Breaking this vicious circle becomes increasingly difficult. This is especially true if the local community is destabilized, either as a result of individuals or smaller groups drawing themselves apart to separately seek a means of deliverance from the unfavorable situation, or simply because a suitable climate or opportunity to meet together and release some of their stress does not exist (Witten et al., 2001).

With the closure of a local school, a rural municipality generally loses its most active organizer of social and cultural events, because where children—the “future of the municipality”—are involved, community activity is at its highest and participation is subject to strict social control. Mrs. Falta, who herself, as well as her daughters, attended the former local school as a child, noted that “before, some of the parents, they didn’t wanna go to the social events, but because their child had a performance or something like that there, they came and this helped people to get together.” If a municipality does not have active interest groups (e.g. sport clubs, volunteer firefighters) that put together community-wide events several times a year and, at least to a degree, fill in for the newly absent school, the municipality will generally not find the will or the opportunity to gather together as a unit.

The closure of a school also undermines a community’s sense of solidarity. The idea of a collection of key institutions—administrative (municipal authority),

educational (elementary school), spiritual (a parsonage), cultural/social (a tavern or pub)—is along with the perception of their representatives (mayor, teacher/schoolmaster, parson, innkeeper) as the local VIPs (Zemánek, 2003) very deeply rooted in the minds of the inhabitants of rural areas in Czechia. Similar observations have been made in foreign countries as well (e.g. Selman, 2001). With the exception of religious institutions (Havlíček & Hupková, 2008), the totalitarian regime was not successful in rooting out this strong tradition, not even through the implementation of new authorities and institutions (Perlín, 2006). The above cited Mrs. Dvořák characterized the school as “just a symbol. Next to church and chapel, there was a school and a pub. These were the three or four key buildings.” The “old orders” and symbols have remained as uncritically adored ideals in the memories of residents, and they form a local identity on the basis of collective memory and shared history to the present day. Residents have “gotten used to” the local school and cannot imagine life without it, because it has stood in the village for generations. Mrs. Dvořák even enumerated members of different generations of her family who have attended the local school: “My older son went there from the second grade on, my second son went there, one granddaughter and another.” There has been also a unique notion of common ownership. Local residents often labored to construct or extensively renovate school buildings without any entitlement to wages (although they were subject to political pressure to “build a socialist village”). Mr. Adámek, a local historian, read during the interview from his municipality chronicle that “in 1969, general maintenance work was done, windows and electricity and a new plaster. The work was done by a brigade of local citizens.” After such a difficult renovation, the closure of a school ordered by a superior authority was particularly painful and devalued the work of the local community. Mr. Gabriel, former mayor, recalled with anger how they “fixed up the school, put in everything new. Windows, floor, electricity.... And, I don’t know how long it was open, a few months maybe, and the gentlemen from the district authority came and shut down our school!”

It was completely normal during communism for the closure of schools, and other establishments, to be accomplished by making a simple public announcement, as documented in the reports of respondents and in records kept in the National District Archives. Mr. Adámek, a local historian, meant that “it was sort of a sudden decision. That they wanted people to, well..., so they wouldn’t talk about it. It just came from above, and that was that.” The chairman of local public administration was informed by letter that a school in his municipality was to be closed by a certain date. The letter also indicated which school in the region the local students would attend and what the school building would be used for (e.g., as an administrative building or

even as a storage space for an agricultural cooperative). In many cases, representatives of affected authorities in democratic countries also forced the closure of local schools (see Bell & Sigsworth, 1987). However, local residents had an opportunity to publically express their opinions, suggest alternatives and utilize available means to reverse the fate of a closed school (public hearing, petition, etc.). While consolidating schools in these countries, decision makers considered a variety of relevant factors such as the organization and frequency of public transportation in the area, existing cooperation among schools, municipal development strategies, and even residents’ regional identity (Dostál & Markusse, 1989; Sell et al., 1996). On the opposite, consolidation in Czechia was more likely to bring about more radical changes in socio-spatial relationships. Mrs. Falta, 65 years old local resident, recalled the past changes in commuting directions: “So the kids started going to Šumavské Hoštice, like they were expected to, because of the direction of the public bus route – at the time there was a regular bus that would go there – even though it was always more natural, more simple to go down to Vlachovo Březí.” Moreover, during the communist period each school had a strictly defined school catchment area, from within which territory all children had to attend the corresponding school. Parents could not, by their own free will and choice, decide to register their children in a different school. Therefore, with the sudden consolidation of schools new obstacles in getting to a designated school could emerge, because either catchment areas did not always correspond with the prevailing directions of public transportation or the public transportation schedules were arranged to accommodate adults travelling to work whose work shifts were beginning at six or seven o’clock, but not at eight o’clock, coinciding with the beginning of the school day. Superior authorities often failed to make accommodations or even refused to deal with the problems that arose from closed rural schools. Mr. Gabriel, former mayor, describes an example of one conflict over a minor change in a public bus route:

As a municipal authority, we requested, at the regional authority, that the bus which ran down on the main road drove up the hill to us for those kids. There were about ten kids. And from the region, they politely wrote back that it would benefit the kids’ health for them to walk down the hill to the bus stop! But a little, seven-year-old kid doesn’t go down to the main road by himself, a parent has to go with him and that takes time!

Loss of time is the most negatively perceived impact of the necessity to commute in the absence of a closed local school. The longer distance and significant travel time to elementary school create further disadvantages

for the inhabitants of settlements with a closed school, in comparison with those who have a school near the place of their living. First, there are increased financial costs for the families involved. These costs are in some cases very significant. For example, Mrs. Dvořák noted, “Half of our pay goes to cover only transportation!” Second, while there is almost always available public transportation connection in the morning for commuting to school and an afternoon connection for returning home, it is impossible to modify the schedules in such a way as to accommodate the needs of every person. Mass public transportation connections which serve all of the localities in a given region come to some places quite early and yet students are the only ones who have to use such transportation. Mr. Bláha stressed that the bus “comes in the morning as early as at a quarter to seven. Oh, there it goes!” After school instruction, other time delays arise. Sometimes there is even several hours’ difference between the end of instruction and the departure of a corresponding connection. According to Mrs. Čáp, a former teacher, “the school ends sometime around noon, but the bus doesn’t depart to come here until three o’clock.” Time spent waiting for transportation as well as time spent in transit handicap commuting students who have less time left for preparing at home for instruction, for free-time activities or even for developing social contacts and a relationship to their place of residence. Mrs. Falta, a mother of two daughters, commented that she has “always been saying that that time when they have to wait at those stops, the time for other connections and all that, I am saying that if that time was used for learning, they would all be ‘A’ students!” Although many parents now drive their children to school by car, for many years in Czechia this was definitely not a normal occurrence. Even now Mrs. Čáp recognized the social injustice between students who have the possibility of quicker, individual transport at their disposal and those without, who are left to use bus connections, to walk or, in some cases, to be helped by the community. In spite of the fact that in Czechia, as opposed for example to Scandinavia (Åberg-Bengtsson, 2009), commuting to school is carried out over a distance of several kilometers and not of several dozen kilometers, it causes rural residents similar difficulties and calls to mind similar questions. Mr. Adámek, a local historian, quoted from a municipality chronicle,⁵

Citizens rightly ask what benefit such consolidation brings when, on the one hand, the state saves in wages for the teachers at small schools, but, on the other hand, the transportation of students to the schools—which at the present time is a quite

expensive and, in many cases, an unnecessary matter—is made necessary.

The effects of elementary school closure on the daily life of local communities in Czechia also fail to exhibit any contradictory tendencies from development in western countries, although the unique characteristics of the totalitarian regime previous to 1989 manifest themselves more dramatically in the manner in which closures were carried out and thus in the perceptions of their consequences. It would be appropriate to continue research on these issues in the future. However, more attention should be given to the effects of the so-called post-totalitarian transformation of society. In particular, the effects of new opportunities for parental choice of elementary school should be taken into consideration. Such research would either confirm similarities in the preferences and behavior of parents between Czechia and other countries (Bradford, 1991; Walker & Clark, 2010) or, once again, emphasize Czechia’s unique historical experiences.

Conclusion

This article analyzed the main developmental processes in elementary education during the second half of the twentieth century in Czechia, a post-communist European country, in connection with general socio-spatial changes in society. Special attention was given to the relevant phenomenon of elementary school closure in rural areas, which brings with it new risks of increasing polarity between core and periphery as well as between urban and rural areas, at least in terms of educational provision. These processes call attention to a variety of disadvantages for individuals, social groups or regions, in terms of access to education. Rural schools are integral educational, social, and cultural institutions and are in many ways different from elementary schools in cities. Their closure has far-reaching effects on the operation of local rural communities and on daily life in rural areas.

Identified changes in Czechia’s elementary school pattern over approximately the last 50 years (1961-2004) do not significantly differ from developments in other developed countries as described by other authors. As a result of the overall transformation of the geographical organization of society, improvements in transport and population decline in rural areas, the number of elementary schools is decreasing along with their being concentrated in hierarchically higher settlement centers. However, it must be pointed out that, in contrast to many Western countries, in Czechia the primary phase of this process occurred during the 1970s as a result of the implementation of a unique totalitarian policy of centrally directed settlement development. Consequently, it was possible to observe

⁵ Chronicles are normally handwritten books kept by each municipality and written by the selected local historian, i.e. a chronicler, so there is no publisher or date of issue. They are written on day to day basis with only the events recorded that are deemed locally important.

the impacts of the mentioned processes with a larger time lapse and with more extensive experiences among impacted residents, although with an increased risk of memory error when recalling information about a period in the more distant past. The effects of school closure on daily life in rural communities in peripheral areas also failed to show any fundamental difference, in comparison with the situation in countries that remained democratic for the entire observed period. The unique features of a former communist country expressed themselves more dramatically in the forms of implementation of changes in the school pattern than in their consequences.

The issue of the transformation of the organization, character and social connections of elementary education requires much broader research than our partial study can provide. First and foremost, it requires comparative research in multiple states, in regions with differing historical experiences. More exact comparisons of the development in post-totalitarian and continuously democratic countries and the application of a single methodology in multiple countries are critical. Last but not least, engaging in discussion concerning possibilities for alleviating the negative impacts of the ongoing processes or viable alternative proposals and their coordination are vital steps in coping with and confronting school closure in rural areas.

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