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Non-formal adult education (NFE) encompasses a broad spectrum of organised learning activities for adults outside the formal educational system, including on-the-job training, workshops as well as individual lessons. Both governments and international organisations have regularly highlighted the importance of high participation rates in NFE as a precondition for the successful establishment of a lifelong learning society. Despite this claim, countries around the world vary a great deal in terms of overall participation of their population, social groups involved, and factors that influence access to NFE. This paper focuses on the long-term participation in NFE in the Czech Republic by investigating the development of adult participation in NFE between 1997 to 2020. We aim to present (1) the main long-term trends in participation in NFE, (2) changes in the critical socio-demographical factors that have influenced the involvement of adults in NFE. For this purpose, we analyse data from international surveys (IALS, PIAAC and AES) as well as from the CZ-ALE, a national survey focused on adult education and learning. Our analysis has found that although participation in NFE significantly increased between 1997 and 2016, it sharply decreased in 2020. In addition, while participation inequality between lower and higher educated adults declined from 2011 to 2020, inequality based on economic activity increased during the same period. Finally, occupational class position has played an important role in the likelihood of participation in NFE, but the influence of this factor has not been as significant as that of employment status.

Schlagworte: non-formal education; participation; the Czech Republic; social change; educational inequality; Sozialer Wandel; Tschechien; Partizipation; non-formale Bildung; Bildungsungleichheit

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Participation in Non-formal Adult Education in the Czech Republic from 1997 to 2020

JAN KALENDA

Abstract

Non-formal adult education (NFE) encompasses a broad spectrum of organised learning activities for adults outside the formal educational system, including on-the-job training, workshops as well as individual lessons. Both governments and international organisations have regularly highlighted the importance of high participation rates in NFE as a precondition for the successful establishment of a lifelong learning society. Despite this claim, countries around the world vary a great deal in terms of overall participation of their population, social groups involved, and factors that influence access to NFE. This paper focuses on the long-term participation in NFE in the Czech Republic by investigating the development of adult participation in NFE between 1997 to 2020. We aim to present (1) the main long-term trends in participation in NFE, (2) changes in the critical socio-demographical factors that have influenced the involvement of adults in NFE. For this purpose, we analyse data from international surveys (IALS, PIAAC and AES) as well as from the CZ-ALE, a national survey focused on adult education and learning. Our analysis has found that although participation in NFE significantly increased between 1997 and 2016, it sharply decreased in 2020. In addition, while participation inequality between lower and higher educated adults declined from 2011 to 2020, inequality based on economic activity increased during the same period. Finally, occupational class position has played an important role in the likelihood of participation in NFE, but the influence of this factor has not been as significant as that of employment status.

Keywords: non-formal education; participation; the Czech Republic; social change; educational inequality

1 Introduction

The measurement and analysis of participation in non-formal adult education (NFE) is crucial to understand contemporary trends and thus to make informed decisions relating to lifelong learning policy and strategies with the goal of securing the involvement of more adults in NFE.

As understood in current literature (Boeren, 2016; Cabus et al., 2020; Desjardins et al., 2006; Van Nieuwenhove & De Wever, 2021), manuals, and reports of international organisations (EC CLA, 2016; UNESCO, 2019, 2020), NFE can be defined as a

wide range of organised learning activities for adults conducted outside the formal educational system. These activities include on-the-job training, workshops, individual lessons as well as other forms of planned and intentional training. Although NFE is not always officially certified, many programs are in fact sanctioned by governmental and other agencies (Singh, 2015). NFE can be divided into two main domains: (1) non-formal vocational education related to the 'formation of human capital' (Hanusek, 2016) for a particular job market; this comprises learning activities targeting the upskilling and reskilling of the workforce, and (2) a form usually termed 'popular education' (Crowther et al., 2005) or 'adult liberal education' (Desjardins, 2020, pp. 15–16). In contrast to type 1 above, type 2 usually includes leisure-oriented learning activities which take place outside of the work environment, i. e. interlinked more with participation in civil society than specifically in the labour market.

We know from scholarly literature that participation in NFE represents the vast majority of participation in adult education and learning (Desjardins, 2017, 2020) and it also brings many benefits to individuals, companies, economies, even civil society (Albert et al., 2010; Schuller & Desjardins, 2010). There is much evidence that adults who have undergone some form of non-formal education and training have improved their employability (Campbell, 2012; Laal & Salamati, 2012; OECD, 2019), including the possibility of transitioning from one segment of the labour market to another as well as increasing their earnings and the likelihood of being promoted within an organization (Jenkins, 2006, 2021). Moreover, several studies have highlighted the finding that adults can benefit from participation in NFE in areas of life unconnected to the workplace. For example, participants regularly show higher levels of civic engagement (Manninen, & Meriläinen, 2014; Iñiguez-Berrozpe et al., 2020) and report better overall quality of life (Field, 2012; Sabates & Hammond, 2008).

Based on that, the main objective of this paper is to explore long term trends in participation in NFE in the Czech Republic.

2 Theoretical Background

In this study, we draw on a 20-year tradition of research focused on participation in adult learning and education, particularly in NFE (e. g. Boeren, 2016; Desjardins, 2017; Desjardins & Ioannidou, 2020; Desjardins et al., 2006; Jenkins, 2021; Rubenson, 2018). According to Desjardins (2011, p. 205), this research niche is oriented toward three fundamental questions: (1) What is the extent of participation? (2) Who is participating? (3) Why are certain people or groups participating either more or less, or not at all?

In attempting to answer these questions, several theories and related typologies of national adult education systems have been developed. These conceptions are part of the overarching framework of the so-called political economy of adult education systems (Desjardins, 2017, 2020; Desjardins & Ioannidou, 2020) which deals with the issues of political and institutional coordination and support of adult education.

Current theories conceptualize participation levels and patterns through a bounded agency model (Rubenson & Desjardins, 2009). According to this conception, involvement in organized adult learning is considered both a result of the decision-making of various social actors, their perception of the utility and value of further education and the institutional features of countries where those actors live. In this regard, particular theories differ in their focus on various clusters of institutions that enhance or block adults from participating in NFE. All of them work with the idea that the adult education systems are deeply rooted in the intersection of various economic, welfare and education institutions (Desjardins, 2022), whereas they usually highlight the central role of one of these institutional clusters.

Welfare regime oriented conceptions (Rubenson & Desjardins, 2009) of participation in adult learning have highlighted the role of supportive welfare state measures and effective active labour policy for increasing the number of adults involved in NFE, as well as lowering inequality in participation. For example, social democratic welfare states, like those in Scandinavia, have implemented more policy measures for adult education support. In contrast, liberal democratic welfare state regimes (e. g. UK, USA) have been less active in this regard. Therefore, adults living in them have faced more obstacles to participation and have had less publicly supported opportunities for organized learning and training.

Another influential conception is the *Varieties of Capitalism* approach (Hall & Soskice, 2001), which stresses the characteristics of the production system labour relationships in a particular country. In this context, the two main types of capitalism are distinguished. First, it is Liberal market economies that are typical of lower investment in workforce development and training, weak employee protection and a dominant focus on the initial level of education. Second, Coordinated market economies that, contrary to the previous type, employ more investment into the development of the workforce, introduce more measures for the protection of employees in the labour market and put less attention to initial formal education. For this reason, the Coordinated market economies create better preconditions for participation in NFE and adult skill formation in the later phases of life (Busemeyer & Trampusch, 2012; Busemeyer, 2015; Estevez-Abe et al., 2001).

The last frequently mentioned institutional features are characteristics of the *formal educational system*. This is because adult education systems are usually deeply interrelated with systems of initial formal education. In this context, many authors (Green et al., 2015; Gross et al., 2016; Lee, 2017; Saar & Ure, 2013) have followed the seminal work of Allmendinger (1989), who distinguished two primary dimensions of formal education system with important implications for participation in NFE. On the one hand, it is the level of standardization of the education system, while on the other hand, it is its stratification. If the standardization in the form of unification of learning outcomes is high, the participation level in NFE is also usually low (Saar & Ure, 2013). The main focus is put on formal education instead of non-standardized NFE (Kilpi-Jakonen et al., 2015). The second factor, the level of stratification, indicates how various parts of secondary education are separated, usually general education and vocational-oriented learning (Green et al., 2015; Gross et al., 2016). In countries with a low level of stratifica-

tion, vocational-oriented education and training are to be carried out later after an initial phase of general education, and therefore they form a structural precondition for a higher volume of further NFE in the workplace (Saar & Ure, 2013; Kilpi-Jakonen et al., 2015). Conversely, a higher level of stratification in initial education predisposes to a lower interest of adults in employment-oriented NFE.

Empirical research based on these theoretical traditions has identified two main trends typical for NFE around the world that could also have particular relevance for the empirical characteristics and the development of NFE in the Czech Republic:

1. *Participation levels* (i. e. extent of participation): Following an overall increase in NFE participation among adults since the 1990s, especially in job-related education and training (Desjardins, 2020; Desjardins & Ioannidou, 2020; Rubenson, 2018) a sharp decline has been reported during the COVID-19 pandemic (Paciorek et al., 2021).
2. *Pattern of participation* (i. e. groups of participants and factors influencing participation): Inequality in participation in NFE among various social groups based on their economic activity, highest attained education, and occupational class position has persisted (Cabus et al., 2020; Hovdhaugen, & Opheim, 2018; Van Nieuwenhove & De Wever, 2021) or has even been exacerbated (Kalenda & Kočvarová, 2020), especially during the COVID-19 pandemic (Waller et al., 2020; James & Thériault, 2020). Generally, lower educated adults, people outside of the job-market, and individuals in the lower social classes have less economic resources available for learning. These adults also usually work in positions with lower educational requirements and/or opportunity for additional education and training than is the case for employed adults with higher education and a higher occupational class position.

3 Research Questions

To understand long-term trends in NFE participation in the Czech Republic, these trends must first be investigated within the national context, with these results then compared with other regional and global contexts. To begin to achieve the first part of this rather broad goal, the main objective of this paper is to systematise empirical findings regarding long-term participation in NFE in the Czech Republic since 1997. For this purpose, we have formulated two interconnected secondary aims:

1. key long-term trends in the overall participation rates in NFE between 1997 to 2020 will be analysed, with this work building on available secondary and primary data sources;
2. the influence of three mentioned socio-demographic variables on the participation in NFE among Czech adults (25 to 64 years) will be analysed through the same time period. In this context, we will explore the effect of (a) attained education, (b) economic activity, and (c) occupational class position (EGP7 scheme) on the involvement in NFE.

Such an analysis will help us to show not only the long-term development of NFE participation among the Czech adult population, but also investigate factors that are responsible for inequality in access to organised lifelong learning as well as to show who have been the main participants and non-participants of NFE in the Czech Republic over time.

In this context, we want to explore not only the role of traditional sociodemographic variables used for the analysis of participation in NFE (education and economic activity) but also introduce a new one – occupational class position using the EGP7 scheme (Erikson & Goldthorpe, 1993; Goldthorpe, 2000). Although the role of social class on involvement in lifelong learning has been discussed (Desjardins, 2011; Desjardins et al., 2006; Rubenson, 2018), it has not been explored by any exact categorization used frequently in sociology. One of these is the EGP7 scheme distinguishing seven different occupational classes that can serve as a tool for understanding class differences in participation in NFE and enable their comparison with other class-based pattern of behaviour.

In terms of long-term development of NFE, we view this type of analysis as essential, as the main body of literature investigating participation in adult learning and education has worked only with the data from one single international survey (e. g. Cabus et al., 2020; Desjardins & Ioannidou, 2020; Desjardins, 2021; Desjardins et al., 2006; Hovdhaugen, & Opheim, 2018; Van Nieuwenhove & De Wever, 2021), has compared two surveys (Desjardins, 2020; Rubenson, 2018; Kalenda & Kočvarová, 2020), or, much less often, has employed panel research data collection (Blossfeld et al., 2011; White, 2012). The original contribution of this paper lies in the utilization of all available data sources regarding NFE from 1997 to 2020, a total of six surveys.

4 The Case of the Czech Republic's Adult Education System

In light of the previously discussed aspects of adult education systems influencing participation in NFE, we have to briefly describe this system's key institutional features in the Czech Republic. From this point of view, the Czech case represents a "hybrid mix" of previously discussed characteristics. We can position it somewhere between liberal and social-democratic welfare regimes (Cerami & Vanhuysee, 2009; Vanhuysee, 2006) with weak support of active labour policy measures (Kalenda, 2015). Due to this, public support for NFE has been historically meagre here (Kopecký & Šerák, 2015). Although its market regime has undergone significant liberalization since the 1990s, employee protective measures have remained high compared to many western European states. Generally, the local skill-formation regime has not a high requirement for adults skills (Nolke & Vligenthart, 2009; Saar & Rais, 2017). The main focus of the skill formation has been on the general education of youth (Hamplová & Simonová, 2014) who have often considered themselves overqualified for their job (Koucký et al., 2014). Furthermore, at least two other essential features have specified the local economy. At first, it

has one of the highest proportions of workers employed in the industrial sector among European nations (OECD, 2021) working as qualified and unqualified manufacturing workers. Second, it has been a typical high demand for the workforce, accompanied by a shallow level of unemployment (Kalenda et al., 2022). Last but not least, a high level of standardisation and low level of stratification between general and vocational education has characterised its formal education system. Moreover, this system's primary orientation has been toward developing a good level of basic skills during secondary education (Scott, 2007). The combination of these characteristics has made the Czech republic an ambiguous type of adult education system with many structural properties that should counteract the high participation rate in NFE and favour a high level of inequality in participation based on the highest attained education and social class position.

5 Methodology

This study draws on secondary and primary quantitative data analyses from several international and one national survey regarding lifelong learning conducted in the Czech Republic since the 1990s. One of the advantages of this approach is that it enables us to cover a relatively long time period (1997 to 2020), and to apply analyses that focus both on the rate of involvement of different groups of adults in NFE as well as the socio-demographic factors influencing participation.

Participation measurement and variables

In line with the operationalisation used in the international tools *Adult Education Survey* (AES) and *Survey of Adult Skills* under *The Programme for the International Assessment of Adult Competencies* (PIAAC), participation in NFE is understood as the involvement of adults (aged 25 to 64 years) in any non-formal education activity in the 12 months prior to the survey administration.

However, there are other ways to analyse the participation issue. The involvement of adults in NFE can be measured by a shorter time duration frame or by the number of hours spent in organised training activities. The first mentioned approach is used by EU *Labour Force Survey* (LFS), which maps participation rates in both formal and non-formal education and training in the preceding four weeks before the survey among adults aged 25 to 64 years.

Although according to Boeren (2016), statistics from the LFS can provide a good source of general trends related to participation in NFE through Europe, these data cannot be directly used for the analysis of some crucial sociodemographic variables that we planned to utilise in our study, mainly EGP7 scheme. Data from the LFS also cover a shorter time frame in comparison to other international surveys measuring participation in NFE and has started to be used only since 2004 for the Czech Republic. Therefore, their utilisation would significantly shorten an analysed period and exclude data from the late 1990s.

Another approach to measuring participation is based on the total time dedicated to organized learning activities. The mean number of training hours per participant or adult during one year is measured (OECD, 2000). This time dimension is crucial because adult education systems could significantly differ not only in the number of persons involved in NFE but also in the time dedicated to learning activities (Desjardins et al., 2006). For this reason, we also explore the average number of hours spent by adults aged 25 to 64 years in any NFE activity in the 12 months prior to the survey administration. For the analysis of socio-demographic factors, three sets of independent variables were selected:

1. *Attained education*, which includes three subcategories according to the international classification ISCED (2011): (a) adults with primary and lower secondary education (ISCED 0–2), (b) adults with upper secondary and pre-tertiary education (ISCED 3–4); (c) adults with tertiary education (ISCED 5–6). All data were coded based on the ISCED (2011) classification.
2. *Economic activity*, defined by the labour status of a person in four categories: (a) employed, (b) unemployed, (c) retired, or (d) on maternity leave. The last three categories represent groups of economically non-active adults aged 25 to 64 years with the highest occurrence in the Czech Republic, who have also been considered as typical non-participants of NFE (Boeren, 2016; Desjardins, 2020). Other economic categories, like students in formal education, were excluded from our analysis.
3. *Occupational class position* according to the EGP7 occupational class scheme (Erikson & Goldthorpe, 1993; Goldthorpe, 2000) that groups adults into social classes according to their occupational position and, by extension, as perceived in society. The conception contains seven categories: (a) higher service class, (b) lower service class, (c) routine non-manual workers, (d) self-employed; (e) technicians and supervisors, (f) skilled manual workers, (g) unskilled manual workers.

Data and analysis

Our analysis is based on the data from the following international surveys: (1) the *International Adult Literacy Survey* (IALS, 1997) conducted in the Czech Republic in 1997 ($n = 5.643$); (2) data from three waves of AES for 2007 ($n = 6.840$), 2011 ($n = 10.190$), and 2016 ($n = 12.272$) realised by Eurostat (AES, 2007, 2011, 2016); and (3) OECD's *Survey of Adult Skills* (PIAAC, 2012) conducted in the Czech Republic in 2012 ($n = 6.102$). In most cases, the data were collected by Czech Office for National Statistics, which has facilitated their use for research purposes. Although these data samples contain data from younger (18 to 64 years) as well as older (65 to 69 years) adults, we worked only with the data for our target population of adults of 24 to 64 years of age. These data were also used for measuring the overall level of participation in NFE as well as in our analysis of the influence of attained education and economic activity on the involvement of adults in non-formal learning activities. In our measurement of the influence of class membership, reduced data samples that contained only working adults were used.

In addition, we also utilised data from a national representative survey focused on lifelong learning conducted by The Research Centre of the Faculty of Humanities, Tomas Bata University in Zlín in 2020 (CZ-ALE, 2020). This survey was carried out between the first and second wave of the COVID-19 pandemic in the Czech Republic and was collected through Computer Assisted Personal Interviewing (CAPI) by a professional data collection company ($n = 1.564$, aged 25 to 64 years). These data have helped us to extend the time horizon of our analysis by investigating losses in the volume of NFE during the first phase of the pandemic.

Utilised data do not represent longitudinal panel dataset with the same methodology and exact same wording of questions. In line with current methodological critique (Boeren, 2016; Widany et al., 2019) in the field, this represents the central limit of the following analysis. Although participation in NFE has been measured in all these surveys, they slightly differ in their definition of NFE and formulation of items in the questionnaire. For example, the IALS survey excluded those who obtained less than 6 hours of training among all participants. Moreover, AES 2007 and AES 2011/2016 differ in an important note regarding the item measuring participation in NFE. While in 2011/2016 this item also states that short mandatory occupational safety and health training in the workplace should not be considered participation, the item from 2007 questionnaire missed this information. This could lead to a minor overestimation of participants in 2007. The slightest differences we could find between the AES 2011/2016 and CZ-ALE 2020 survey, which used the exact wording and operationalization of all measured items.

In summary, our analysis is based on the same defined category of adult education (NFE) and participation horizon (12 months before the survey), which are comparably stable. Based on that, utilised data collectively represent a good source of information for understanding long-term trends concerning patterns of participation in NFE.

All analytical procedures were realised using IBM SPSS 27.0. Two levels of analysis were employed: (1) descriptive statistics with a focus on long-term trends in NFE participation which also explores the involvement of various social groups based on their socio-demographic characteristics, and (2) an analysis of socio-demographic variables influencing involvement in NFE. Data regarding influence was captured by a regression analysis and determination of odds ratios through binary logistic regression using the Enter Method with control of crucial sociodemographic variables. Enter Method was carried out for each individual data sample and then compared, with the odds ratios representing the relative likelihood of participation occurring for a particular social group compared to a reference group (e. g. higher educated as compared to lower educated adults, see Table 4). An odds ratio of 1.0 represents equal chances of involvement in NFE for a particular group as compared to the reference group. Coefficients with a value below 1 indicate a lower probability of participation in NFE for a particular group compared to the reference group, with coefficients greater than 1 representing increased likelihood (Menard, 2002). The level of statistical significance was based on a p -value of 0.05.

6 Results

Trends in overall participation in NFE

Since the initial measurement of adult involvement in NFE in the 1990s, the Czech Republic has ranked among the countries with a below-average participation rate (Desjardins et al., 2006; IALS, 1997). This situation is similar in other Central and South European countries that introduced adult learning systems during the late 1980s and early 1990s. It was determined that only after 2007 the Czech Republic had finally ‘caught up’ (Green, 2006) with Western European and Scandinavian countries, which had been early adopters of national-scale lifelong learning (Saar et al., 2013). The table below (Tab. 1) confirms this catching up since the 1990s and contextualises the participation trends in the Czech Republic among other European countries already involved in the IALS survey in 1994–1998.

Table 1: Trends in participation in NFE in selected European countries: 1994/1997 to 2016

Country	1994–1998*	2007	2016
Czech Republic	27	35	45
EU (28 countries)	N.A.	32	43
Portugal	24	40	44
Finland	57	51	48
Sweden	53	69	57
UK	44	24	48
Slovenia	31	36	43

Note: Data in percent. *Data were collected in those countries in period of 1994 to 1998. Participation measured as involvement of adults (25 to 64 years) in any non-formal adult education in the 12 months prior to survey. Data for IALS excluded adults who obtained less than 6 hours of training. Data in percent. *Source:* IALS (1997), AES (2007, 2016), OECD (2000).

Fig. 1 then shows the long-term development of the overall participation rate in NFE between 1997 to 2020 in the Czech Republic. Two clear trends can be seen, the first of which is an overall increase in participation rates from 27 % of adults for 1997 to 45 % for 2016, i. e. an annual growth of almost 1 percent (see also Tab. 2). Nevertheless, this growth was followed by a sharp decline for 2020 when the first wave of the COVID-19 pandemic decreased the level of participation back to numbers comparable with the late 1990s.

Similar to the first trend, a second tendency in the growth of job-related NFE can be noted, one which includes a majority of organised education and training for adults in the Czech Republic: the data show a slightly lower degree of growth in non-job-related learning. This segment of NFE grew only by five per cent point over the two decades after 1997.

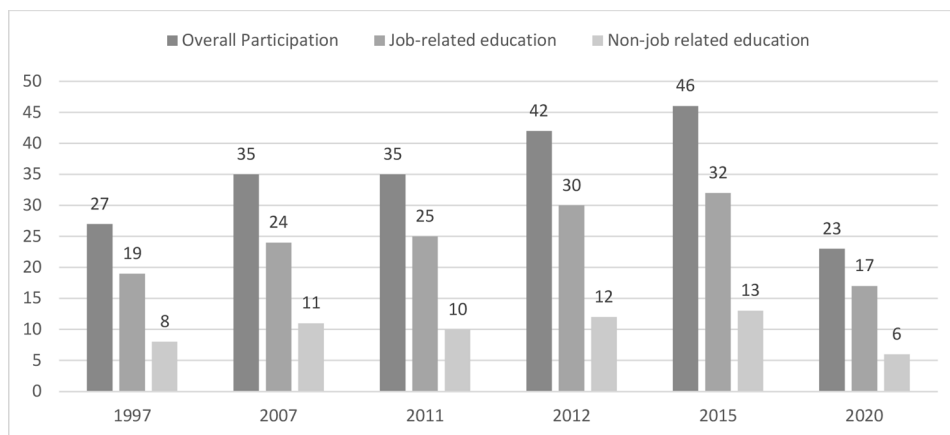


Figure 1: Trends in overall participation in NFE in the Czech Republic between 1997 to 2020

Note: Participation measured as involvement of adults (25 to 64 years) in any non-formal adult education in the 12 months prior to survey. Data in percent. *Source:* IALS (1997), AES (2007, 2011, 2016), PIAAC (2012), CZ-ALE (2020).

Nevertheless, we have to note that although this increase does not represent high absolute growth, it actually shows almost the same relative increase as participation in job-related NFE (a 65 % increase in non-job-related education versus a 67 % increase in job-related education between 1997 to 2016). In summary, these data document the overall expansion of number of adults involved in NFE until the outbreak of the COVID-19 pandemic, with a similar proportion of participation in job-related and non-job-related training activities.

However, data for the second indicator of participation in NFE tell a different story. The mean number of NFE training hours per participant has declined since 1997 (see Table 2.). It went down from 117 to 35 hours in 2016, while then it slightly increased in 2020 to 41 hours. These levels are generally much lower than the EU average. Actually, the participation of Czech adults based on the number of hours was one of the lowest in Europe in 2016. Concerning this trend, we can conclude that although the number of adults during the monitored period significantly increased till the COVID-19 pandemic, the number of training hours per participant significantly decreased.

Table 2: Trends in hours of participation in NFE in the Czech Republic between 1997 to 2020

Area	1997	2007	2011	2016	2020
EU (28 countries)	N.A.	73	81	78	N.A.
Czech Republic	117	55	52	35	41

Note: Data in average number of training hours per participant of NFE. Participation measured as involvement of adults (25 to 64 years) in any non-formal adult education in the 12 months prior to survey. Data for IALS excluded adults who obtained less than 6 hours of training. *Source:* IALS (1997), AES (2007, 2011, 2016), CZ.ALE (2020).

Trends in participation of main social groups in NFE

Typical significant differences have been shown regarding access of adults to NFE in the Czech Republic among the involvement of various social groups based on their socio-economic characteristics: (1) highest attained education, (2) economic activity, and (3) class position. These three variables have been shown to affect the vast majority of inequality in access to NFE.

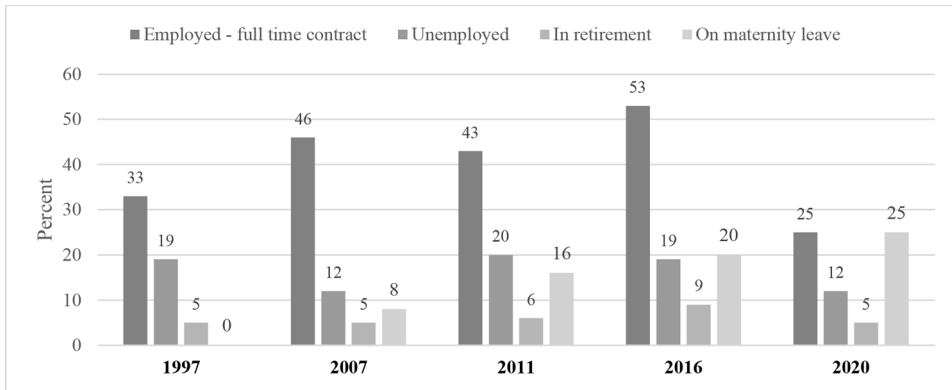


Figure 2: Trends in participation in NFE based on economic activity: 1997 to 2020

Note: Participation measured as involvement of adults (25 to 64 years) in any non-formal adult education in the 12 months prior to survey. Data in percent. *Source:* IALS (1997), AES (2007, 2011, 2016), CZ-ALE (2020).

Fig. 2 provides an overview of trends in the participation in NFE based on the economic activity of adults since 1997. As expected, employed report the highest participation rate. In addition, their involvement in NFE increased significantly from 33% for 1997 to 53% for 2016. Other groups of adults – the unemployed, the retired, and individuals on maternity leave – participated much less. Especially retired adults showed a meagre participation rate, as only 5 to 9% of this population took part in any organised learning activity during the period mapped.

Table 3: Trends in participation in NFE according to education and class membership: 1997 to 2020

		1997	2007	2011	2016	2020	Growth 1997–2016 ¹	Annual change 1997–2016 ²	Decline 2016–2020 ³
All adults	Overall participation	27	35	35	45	23	18	0,9	–22
Highest attained education	ISCED 0–2	11	14	12	17	11	6	0,3	–6
	ISCED 3–4	36	34	34	40	30	4	0,2	–10
	ISCED 5–6	47	48	49	53	44	6	0,3	–9

(Continuing table 3)

		1997	2007	2011	2016	2020	Growth 1997– 2016 ¹	Annual change 1997– 2016 ²	Decline 2016– 2020 ³
EGP7 Class Scheme	Higher service class (I.)	45	60	60	63	41	18	0,9	–22
	Lower service class (II.)	47	62	64	70	48	23	1,2	–22
	Routine non-manual work (III.)	23	53	53	60	15	37	1,9	–45
	Petty bourgeoisie (IV.)	27	27	28	39	15	12	0,6	–24
	Technicians and supervisors (V.)	42	59	57	65	38	23	1,2	–27
	Skilled manual workers (VI.)	29	48	39	52	32	23	1,2	–20
	Unskilled manual workers (VII.)	18	19	14	23	15	5	0,3	–8

Note: Participation measured as involvement of adults (25 to 64 years) in any non-formal adult education in the 12 months prior to the survey. Data in percent if not stated otherwise. ISCED = International Standard Classification of Education. EGP7 = European Group Profession 7 class scheme.¹ Growth in percentage points during the period 1997 to 2016.² Annualised percent change in participation during the period 1997 to 2016.³ Decline in participation in percentage points during the period 2016 to 2020. Source: IALS (1997), AES (2007, 2011, 2016), CZ-ALE (2020).

In contrast to the long-term trends in overall participation captured in Fig. 1, the results regarding trends in the involvement of various social groups in NFE according to their economic activity were not unequivocal. The involvement of the unemployed in NFE varied between 12 to 20%, without any dramatic rise since the 1990s. Similarly steady figures were also typical for retired adults. In contrast, what is striking is the involvement of adults on parental leave. While in 1997, less than 1% of adults from this group participated in NFE, in 2020, despite the restrictions and measures related to the COVID-19 pandemic, every fourth person from this social group was shown to participate.

Tab. 3 covers the main changes in participation based on two key characteristics of adults: the highest attained education of the respondents based on ISCED classification; and class position based on the EGP7 occupational class scheme (Erikson & Goldthorpe, 1993; Goldthorpe, 2000).

Regarding attained education level, the table shows sharp differences in participation in NFE. Adults with short-cycle tertiary education or a university degree (ISCED 5–6) participated in NFE much more frequently than adults with only primary or lower secondary education (ISCED 0–2). Higher educated adults with ISCED 5–6 were involved three or four times more than the adults with the lowest formal qualification.

Further, adults with upper secondary or pre-tertiary education (ISCED 3–4) usually participated in NFE 10 to 15 percent less frequently than did individuals with higher education diplomas. Moreover, these differences were constant throughout the analysed period. While participation slightly increased in all other categories from 1997 to 2016, differences among education groups remained approximately the same. This finding also corresponds to data for 2020; i. e. although a sharp decline occurred in the volume of participation, the proportion among groups remained similar. These trends confirm data for the annual change in participation between 1997 and 2016 (see Tab. 1) that report annual growth of between 0.2 and 0.3 percent for all three educational categories.

Similar differences can also be found in adult involvement in NFE based on occupational class position. From this perspective, it is worth mentioning that members of the lowest service class had the highest level of participation in NFE, taking part even more than individuals from the higher service classes according to the EGP7 scheme. Furthermore, numerous technicians and supervisors were frequently involved in organised learning activities themselves during the monitored period, with almost two thirds participating in at least one NFE activity per year after 2016. At the opposite pole of the participation continuum are situated the unskilled manual workers and adults from the self-employed workers who had the lowest participation level in NFE. The highest growth rate in the period 1997 to 2016 was reported for routine non-manual workers (1.9 % annual change), followed by the lower service class, technicians and supervisors, and, surprisingly, skilled manual workers (1.2 % annual growth).

In contrast to the category of attained education, trends in participation in NFE according to occupational class were uneven. Though also in this case the main trends reflected the overall growing trend in participation levels from 1997 to 2016 with a sharp fall in 2020, some social classes recorded a long period of stagnation till 2016, while others showed a higher level of growth in the early part of the analysed period. For instance, adults from the higher service class increased their participation only from 1997 to 2007, after which they remained at almost the same level until 2016. On the contrary, unskilled manual workers and self-employed did not increase their involvement in non-formal organised learning prior to 2016. Last but not least, the skilled manual workers showed the most uneven evolution of participation in NFE, as their participation sharply increased twice (in 2007 and 2016) as well as decreased twice (in 2011 and 2020).

In comparison to the classes with uneven growth, we have identified a long-term steady increase in NFE participation among adults from the lower service class, technicians and supervisors, and routine non-manual workers, a group which almost tripled their initial level of participation in 2016.

Table 4: Trends in chances of participation in NFE in the Czech Republic based on education, economic activity and class membership: 1997 to 2020

		OR (CI 95 %)				
		1997	2007	2011	2016	2020
Highest attained education	ISCED 0–2 (ref.)	1.0	1.0	1.0	1.0	1.0
	ISCED 3–4	1.6*	3.4	2.3*	2.1*	2.2*
	ISCED 5–6	1.7*	6.3*	3.7*	2.9*	2.6*
Economic activity	Unemployed (ref.)	1.0	1.0	1.0	1.0	1.0
	Employed – full time contract	1.0	2.8*	3.0*	6.1*	5.9*
	In retirement	0.3*	0.4	0.3	0.2*	0.3
	On maternity leave	0.0	0.8	0.6	0.8*	0.5
EGP7 Class Scheme	Unskilled manual workers (ref.)	1.0	1.0	1.0	1.0	1.0
	Higher service class	2.3	2.2*	2.1	2.0*	2.5*
	Lower service class	2.1*	2.3*	2.1	2.2	1.5*
	Routine non-manual work	1.3*	1.8	1.9	2.1	1.3*
	Self-employed	1.4	1.3	1.3	1.3	1.1
	Technicians and supervisors	2.0	2.5*	2.0	2.1*	2.0
	Skilled manual workers	1.4*	1.7*	1.5	1.9*	1.5

Note: Ref. Reference category. *P*-value significant on the level < 0.05 **P*-value < 0.001 . OR – odds ratio, CI – confidence interval. *Source:* IALS (1997), AES (2007, 2011, 2016), CZ-ALE (2020).

Crucial factors influencing participation in NFE

Tab. 4, which covers the period from 1997 to 2020, shows the main patterns of unequal chances of participation in NFE. The data represent the results of binary logistic regression analysis with control of other socioeconomic variables using the Enter method, which was carried out for each data sample and then compared with the odds ratios representing the relative likelihood of participation (for details, see methodology above). Dependent variables, in this case, represent the highest attained education (ref. cat. ISCED 0–2), economic activity (ref. cat. unemployed), and class category (ref. cat. unskilled manual workers).

In the table we can see that education played a crucial role in participation in NFE in the Czech Republic, as individuals with the highest level of education (ISCED 5–6) had far higher probabilities of participating in NFE than did adults with primary or lower secondary education (ISCED 0–2). Interestingly, the likelihood of participation for the ISCED 5–6 population dynamically increased from 1997 to 2007 – from a 1.7 odds ratio to 6.3. Nevertheless, after this period educational inequality in participation started to fall, significantly decreasing during the period between 2010 and 2016. This is

especially typical for differences in chances between higher educated individuals and adults with upper secondary education (ISCED 3–4), which began to equalise.

Tab. 4 also shows differences in chances of participation according to the economic activity of the adults, with chances beginning to expand after 2007. Soon after, the chances of employed adults for participation in NFE also increased. In this context, the rate jumped from a three-fold advantage over other socio-economic groups between 2007 and 2011 (2.8 to 3.0 odds ratio) to a six-fold advantage in 2016 and 2020 (6.1 to 5.9 odds ratio). While the inequality in participation in NFE based on attained education tended to decline, the inequality related to socio-economic activity increased.

Regarding the occupational class position of adults, the highest long-term odds of participating in organized adult learning were shown by members of the lower and the higher service class, accompanied by adults working as technicians and supervisors. These social groups had a two-fold greater chance to enter NFE than unskilled manual workers. In contrast to the influence of education and economic activity, data for the influence of occupational class position do not indicate any strong global trend in odds ratios, with one exception, i. e. a slow improvement of likelihood among routine non-manual workers between 1997 and 2016, as this class slowly decreased its participation gap as compared to other classes.

7 Discussion

As elsewhere, in the Czech Republic there is a notable absence of long-term oriented reports focused on participation in NFE at the national level. More research and analysis would foster a deeper understanding of the trends in organized non-formal learning for adults which could inform adult education policy and practice. To this end, the first aim of this study was to capture long-term trends in the overall participation rates in NFE in the Czech Republic from 1997 to 2020. Our findings reveal that despite the overall sharp upward trend in participation of number of adults from 1997 to 2016, in 2020 their involvement declined to levels comparable with those of the beginning of the analysed period.

With regard to this trend, participation in the Czech Republic paralleled global development during the 1990s and 2000s (Desjardins, 2020; Desjardins & Ioannidou, 2020; Rubenson, 2018) as well as the global decline after the outbreak of the COVID-19 pandemic (Paciorek et al., 2021). Moreover, most of the previous growth had been caused by an increase in job-related training activities, which encompassed the vast majority of NFE during the last two decades.

We are currently entering a period during which we will have to wait and see whether a recovery in adult education and training will occur to get the Czech Republic back on track with its previous sharp growth. According to several authors (Hawley, et al. 2020; Webb et al., 2022) and international reports (OECD, 2021; UNESCO, 2022), this scenario is highly probable, since both economic challenges and problems related to social and environmental sustainability will require a wide scope of organised learn-

ing for adults. On the other hand, global geopolitical and economic developmental issues connected with the recent war in Ukraine, inflation, as well as energy issues related to a lack of gas and rising electricity prices could lead to the reduction of educational expenditures by individuals, employers, nations and the European Union. As a result of any or all these factors, the resurgence of NFE participation could come slowly or it could even stagnate at the 2020 level.

Our position is that national adult education policy must focus on promoting NFE in the upcoming years if the downward trend is to be reversed or at least stabilised. To this end, governmental policy should support not only formal adult education and NFE programs based in universities (MEYS, 2021), but also introduce measures that will restore and maintain job-related education among employers. Popular adult education, which has been relatively weak in the Czech Republic in comparison to Scandinavian and Western European countries, must also be buttressed.

What is interesting in the case of the Czech adult learning system is the long-term decline in the number of training hours per participant of NFE, accompanied by the rise of persons participation between 1997 to 2016. Data reveals that although the number of participants is comparable with other European states after 2007, time spent by organised learning is among the lowest. The possible explanation for this result is based on the high level of basic skills among Czech adults (Straková & Veselý, 2013) and low demands for intensive job-oriented training in the labour market (Nolke & Vligenthart, 2009; Saar & Rais, 2017). These structural preconditions of the Czech adult education system have led to the situation where many adults and employers providing them with job-related training have been able to cope with the obsolescence of skills through short-duration training. If we add low unemployment rates and very high demand for the workforce to this equation, it helps us understand why neither employees nor employers have strategically invested in more intensive, long-duration training. In this case, the enhancement of skills by organised learning activities does not represent a tool for improving the employability of adults. At the same time, for employers, who have faced high demands for utilising a disposable workforce and need every worker, NFE cannot fulfil their needs. For this reason, they have been unwilling to support long-duration training.

Our secondary aim in the present research study was focused on differences in participation among various social groups along with the role of key socio-demographic factors influencing the involvement of adults in NFE. In this context, it is worth mentioning that the results based on participation factors highest attained education, economic activity and occupational class position did not converge between 1997 to 2020, nor during the period of the first and most extensive expansion of participation in NFE from 1997 to 2016. In other words, the overall growth was not accompanied by an overall democratization in access to NFE. Instead, the results indicate that differences among the analysed groups have increased along with the general inequality of access. This trend is probably an outcome of long term weak support of NFE oriented on those who are outside of the labour market, or have low-level of attained education. A current

adult education policy that focuses on formal higher education and support of job-oriented training realised by employers could not meet this demand.

In particular, the influence of economic activity on participation has significantly risen compared to the role of attained education. While education was more important for access to non-formal-educational opportunities in the period 1997 to 2011, i. e. prior to the main expansion of the Czech higher education system, since 2016 economic activity has overtaken the primary role. We assume that the dramatic growth of the number of graduates with university diplomas (ISCED 5–6) in the period of 2004 to 2012 (Koucký et al., 2014) shows a lowering of exclusivity of higher education among the Czech adult population. This in turn led to a weakening of attained education as the crucial precondition to access occupational positions that need continuous lifelong learning as well as the lessening of the influence of the lifestyle of higher educated adults, for whom frequent participation in NFE had been typical. For this reason, education has not been as accurate a predictor of participation as it once had been.

Further, we also identified significant differences in likelihood of participation in NFE based on the membership in particular occupational classes: the higher service class, the lower service class, and technicians and supervisors, all of whom had regularly shown a two-fold chance to participate in comparison to unskilled workers and the self-employed petty bourgeoisie, the categories with the lowest participation rates.

Generally, our results indicate that the inequality in participation in NFE between various social groups based on their economic activity, highest attained education and occupational class position have persisted in the Czech Republic during the last 20 years. What makes the situation in the Czech Republic different is the more significant role of economic activity for participation compared to education, which has been influencing the involvement into NFE more greatly in other countries such as Belgium, Australia, Cyprus and the United States (Desjardins, 2020).

Furthermore, inequality in participation in NFE in the Czech Republic based on the measured socio-demographic factors has not increased during the COVID-19 pandemic, as other studies have also claimed (Waller et al., 2020; James & Thériault, 2020). Leaving aside inequality based on economic activity, inequality overall slightly dropped in the Czech Republic. One possible explanation for this result could be that the involvement of the Czech adults in NFE has primarily depended on employment status and the availability of job-related training. If some external factor, like the COVID-19 pandemic, negatively impacts the labour market, this translates to an overall decline in chances to participate among all social classes at more or less the same rate.

Based on these findings, we suppose that *national adult education policy should target* NFE that is focused more on adults outside the labour market, a population that has always faced the highest level of inequality. Furthermore, when individuals in this group also have a lower level of education, they have essentially been excluded completely from lifelong learning activities. In addition to initiatives focused on those completely outside of the labour market, future attention will need to be devoted the training and development of unskilled manual workers with very low participation rates in NFE. These efforts are even more important considering the fact that unskilled workers

represent the social class that will be threatened most by the disappearance of the traditional industrial sector (ILO, 2022). This population comprises almost twenty percent of current occupational positions in the Czech Republic.

As we have already mentioned in the methodological section above, the main limitation of this study represents data utilised for our long-term analysis. Although they illustrate the overall trends in NFE, they cannot be considered equal because especially older surveys (IALS 1997 and AES 2007) differ in the wording of items measuring participation and explanatory instructions for respondents. This could lead to minor differences in the overall participation rates, as well as in results of the subsequent analysis of key factors related to participation.

To face these methodological limits and support data-driven adult education policy in the Czech Republic, we propose that future research in the field should address more regular monitoring of participation in NFE. Such a research endeavour should utilise standardized items for various dimensions of participation – i. e., different time frames (e. g., 12 months and four weeks prior to the survey) and measures (number of participants and hours). Beyond that, it should also explore a new model of measuring participation that has been proposed by some authors both inside (Boyadjieva & Ilieva-Trichkova, 2022) and outside of this field of adult education (Kelty et al., 2015).

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