

COMPARISON OF THE REPRESENTATION OF SENIORS IN THE LABOUR MARKET ACROSS SECTORS IN THE EUROPEAN UNION AND THE CZECH REPUBLIC

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Abstract

In the context of demographic changes, the aging of the population and the importance of the senior age group (65-75 years old) is growing. This is increasingly entering the labor market in most EU countries. The share of seniors has been increasing continuously for more than 20 years and started to stagnate during the COVID-19 pandemic across European Economic Area countries. For example, in 2021, the share of working seniors over 60 in total employment is 8.9% in the Czech Republic. Working seniors working in all sectors across the EU. There is a high representation of working seniors in scientific and technical activities, administrative and support activities, education, health and social care, and cultural, entertainment, and recreational activities. These sectors often employ people with a university degree. Here, working seniors are an essential asset to work teams, where they bring valuable work experience. The least affected area is information and communication firms, as this sector work with younger and middle-aged workers. Another industry with a lower proportion of seniors working in the workforce is those requiring demanding physical jobs. The paper aims at trends in working seniors' employment within the sector in the Czech Republic and the European union. Another aim of this research is to analyze the significant trends in the employment of seniors and to point out possible developments in seniors' work in different sectors, given the upcoming economic recession in Europe. The paper methodology covers analyzing secondary data sources, using data from the Eurostat database and the Czech Statistical Office.

Keywords: employment, senior work, Industry, NACE, European Union, Czech Republic

JEL Code: J00, J11, J14

Introduction

Working seniors are an integral part of the economy in the Czech Republic and the entire European Union. The importance of this group of employees in the labor market is growing not only in the context of the aging population but also in the context of their actual importance in work teams - the transfer of experience. Furthermore, it is expected that with the onset of the

economic recession, the number of working seniors will increase as they will be forced to improve their financial situation (Strategic Framework Czech Republic 2030).

It is, therefore, a question of which seniors are attractive for the labor market, as physical and mental fitness is also crucial in the case of employment of seniors. Gender and qualifications are decisive for employment in specific fields. It should be noted that senior positions are not suitable in all sectors. The following paper presents different perspectives on the employment of seniors in the labor market, not only in the EU as a whole but also in the Czech Republic and selected countries.

1 Literature overview

The progressive aging of the population is an accelerated and inevitable phenomenon. It represents one of the main challenges for modern countries' economies worldwide, with significant economic and social consequences (Podgórníak-Krzykacz *et al.*, (2020); Marcucci *et al.*, (2021)).

"The silver economy" study, commissioned by the European Commission, took into consideration the European population over 50 years of age, up to the over 100s, and indicated that 199 million Europeans, 39% of the entire population, are already the protagonists of this new economy and will become 222 million in 2025, reaching 43% of the population (European Commission, 2018). Therefore, the increase in life expectancy of the people, combined with the decrease in the birth rate, makes the Silver Economy sector very attractive to any business. (Marcucci *et al.* (2021)). Moreover, population aging provides economic opportunities for elderly's care and has a positive impact on tourism. Affluent pensioners can travel anytime, including off-peak care or grandchildren. At the same time, parents work, reduced crime rate because older people tend to be more law obedient, and the benefit of higher knowledge and experience of a more aging workforce (Marešová *et al.* (2015)).

The elderly population is expected to increase rapidly in the future. For example, the population aged 60+ increased from 10.33% in 2000 to 13.26% in 2010 and is projected to increase to 32.8% in 2050 (United Nations, 2010).

Population aging tends to reduce the rates of work participation and saving rates, which are likely to adversely affect economic growth (Marešová *et al.*, (2015)). Furthermore, based on their modeling in Scotland, (Lisenkova *et al.* (2013)) conclude that population aging is associated with lower output per capita and higher public spending, particularly on health and pension (Sitoresmi *et al.* (2020)).

The aging population is characterized by the growth of young people, which continues to slow down due to a declining birth rate and an aging population that has increased due to an increase in life expectancy (Burtless (2013)).

Sitoresimi et al. (2020) states that an increase in the elderly population is an interesting issue to discuss because, generally, the elderly rely on the productive age population or the so-called dependency ratio. The dependency ratio is the ratio between the abundant age population and the nonproductive age population. The burden on the productive age population is increasing along with the increasing number of the elderly population.

An aging population will be a societal burden that must be addressed. The response to an aging population and increasing life expectancy is to extend working life by keeping many older people out of the labor market and, in some ways, still involved in the labor market.

Sitoresmi et al. (2020) states that there are at least three reasons why older people are still working due to high-quality medical care; many older adults are still physically and mentally robust. Economic pressure requires the elderly to continue working. The last is self-actualization or emotional motives. Finally, marital status could be another reason. Most older women are divorced, while older adults are married.

Utami et al. (2016) and Sitoresmi et al. (2020) state that elderly residents with families usually depend on their families, such as children and grandchildren. They conclude that the number of dependents positively affects the decision of the elderly population to keep working. When the number of dependents increases, the possibility of the elderly working increases because of living needs.

In addition, another factor that can also influence the elderly to continue working is the level of education. Older adults with a high educational background generally have excellent jobs, so they no longer need to find work to support themselves and their families in their old age. Older adults with higher education backgrounds generally work in the formal sector and get pension benefits. As well, the elderly who have a low educational history still have to work to support their needs (Sitoresmi et al., (2020)). Nilsson et al. (2016) state that in Sweden, the total proportion of individuals aged 55–64 in the workforce increased between 2004 and 2011, but the increase was mainly in professions with lower educational requirements, a lower salary, and dominated by women.

Sitoresimi et al. (2020) argues that the level of education influences the work participation of the elderly population. Therefore, it is expected that the higher the level of education of the elderly, the percentage of working elderly tends to decrease. This is because

the elderly with a high educational background generally used to have a good job and get a pension, so they no longer need to work to meet their needs and their families in their old age. Emerging employment opportunities for seniors are in the areas of healthcare, housing, and services; now, they also break into more innovative ones such as technology, communication, and artificial intelligence (Marcucci, G. et al., Berthelot – Guiet, (2018); Carra and Tabia, (2020); Kohlbacher and Herstatt, (2010); Sikos T and Kovács, (2019)).

Involving working seniors brings with it several advantages and disadvantages. It can be stated that older workers are more productive. Mincer (1974), and Lallemand et al. (2009), for instance, argues that older workers have more job experience and know-how, which increases their performance. There is also a higher probability of being assigned to the best position in the firm (Jovanovic, (1979), Lallemand, (2009)). Moreover, they are more likely to match their job preferences correctly with the employer's requirements (Johnson (1978), Lallemand et al. (2009)). Autor et al. (2003) and Lallemand et al. (2009) expect a rise in the performance of older workers over time. During the last decade, the demand for interactive skills in the labor market (i.e., abilities which do not generally vary with age) has increased more than the demand for problem-solving and mathematical abilities (i.e., skills that are supposed to be declining with age).

On the other hand, multiple factors suggest that younger workers are more productive. One of the most frequently cited arguments is that a worker's health tends to deteriorate over the life cycle (e.g., diseases, absenteeism, body strength, depression, etc.). In addition, older people were more likely to be satisfied at work. In addition, it is argued that cognitive abilities generally decrease with age.

Young people are thought to be more motivated to exert higher effort since they want to give an excellent signal to their employer (Grund and Westergaard-Nielsen, (2005), Lallemand, (2009)). On the other hand, older people might be less willing to invest in training programs since they are closer to retirement and cannot learn new skills well (Hayward et al., (1997), Lallemand, (2009)). Employers generally perceive older workers (Itzin et al., (1994), Lallemand, (2009)). Moreover, employers might be more reluctant to invest in training for older workers because they have a shorter period to benefit from on-the-job training (Brooke (2003); Prskawetz et al. (2006), Lallemand (2009)). (Taylor and Urwin (2001), Lallemand, (2009)) argue that young workers change jobs more often, reducing employers' return to on-the-job training.

In general, substantial decreases in productivity are observed after the age of 50. Hellerstein, in the studies, found that productivity peaks at 55 years or more. (Hellerstein and Neumark (1995); Hellerstein et al. (1999), Lallemand (2009)).

The present analysis of working seniors focuses on the EU labor market. The EU working population's 65-74 age cohort is compared with the same age group in the Czech Republic. The analysis focuses not only on 2021 but also presents a comprehensive view of the last almost 20 years; the period under study is from 2002 to 2021.

More than half of the workforce aged 65-74 years was employed on a part-time basis. More than two-fifths of the crew in this age group were self-employed. Employed women aged 65-74 years spent an average of 25.0 hours per week at work. (Eurostat).

According to Eurostat statistics, 192,962.3 thousand people aged 15-64 were employed in the EU in 2021, and 4,618.0 thousand people aged 65-74. Compared to 2020, this number has decreased by 25 thousand. Of the total number of all employed people aged 15-74, working seniors (65-74) accounted for 2%. In the Czech Republic, the share of the number of working seniors (65-74 years) to the total number of employed (15-74 years) was 3% (15-74 years: 5 198.7 thousand, 64-75 years: 132.6 thousand).

Germany (1,170.9 thousand, 25%), Italy (613.4 thousand, 13%), and France (422.4 thousand, 9%) have the largest share of the total number of working seniors in the EU in 2021. On the other hand, Luxembourg, Cyprus, Malta, and Slovakia report the smallest share of 62.7 thousand working seniors.

Estonia, Latvia (4%) and Sweden, Lithuania, and Ireland (5%) have the highest share of working seniors (64-75 years) in the total number of the surveyed age group (15-75 years). On the other hand, Austria, Slovakia, Spain, Luxembourg, Belgium, and Romania (1%) have the lowest share of working seniors.

1.1 The general trend of working seniors in the EU and the Czech Republic

The trend of working seniors in the EU shows virtually constant growth, with no significant fluctuations in the last two decades. Moreover, the number of seniors has consistently increased in periods of weakening economic activity (i.e., after 2008 and after 2011).

The sustained growth in the number of working seniors was slowed in 2021 when the number of employed seniors declined due to Covid-19. As a result, the annual decline between 2020 and 2021 was 25.3 thousand working seniors, a 1% decline.

Among EU countries, the most significant decreases between 2020 and 2021 were recorded in Romania (9% decrease between 2019 and 2020, 68% decrease between 2020 and

2021) and Portugal (2% decrease between 2019 and 2020, 16% decrease between 2020 and 2021). On the other hand, Spain (growth between 2019 and 2020 - 17%, growth between 2020 and 2021 - 15%) and Poland (growth between 2019 and 2020 - 9%, growth between 2020 and 2021 - 6%) have recorded growth between 2019 and 2020, 2020 and 2021.

The situation in the Czech Republic is similar compared to the EU. There is a steady increase in the number of working seniors. Fluctuations can be observed in 2009 and 2013 when there was an increase in working seniors. The steadily increasing trend of the past years (since 2014) was slowed down in 2020 and 2021 due to Covid-19. The year-on-year decrease between 2020 and 2021 was 2.5 thousand working seniors, which is 2% compared to 2020. Reaching the status of 2019 and 2021, the decline is 4.5 thousand working seniors, which is a decrease of 3%.

1.2 Selected sectors over 20 years

The selected sectors have been analyzed based on Eurostat data. The analysis focused on data for the period 2002 - 2021. The sectors were broken down according to the NACE classification. It should be stressed that the NACE classification of industries was reassessed during the 2006 reference period (Regulation (EC) No 1893/2006).

The EU's agriculture, forestry, and fishing sectors have declined steadily since 2002. In 2021, 8.8% of EU workers were in this sector. In the Czech Republic, it was 3.2% in 2021. The decline in this sector occurred in 2021, while since 2010 (except 2014), the trend in this sector has been upwards. The industry (except Construction) sector shows a growing trend in the EU and the Czech Republic. In 2021, 10.3% of people aged 65-74 worked in this sector, compared to 15.5% in the Czech Republic in the same year, the third most represented sector. The construction sector has shown steady growth in the EU and the Czech Republic over the period under review. 5.5% of working seniors in the EU work in this sector, compared to 6.7% in the Czech Republic.

The following industries - Wholesale and retail trade, transportation, accommodation and food service activities, Information and communication activities, Financial and insurance activities, Real estate activities, Professional, scientific and technical activities; administrative and support service activities, Public administration, defense, education, human health and social work activities, Arts, entertainment and recreation activities; other activities; activities of the household and extraterritorial organizations and bodies were analyzed only from 2008 onwards due to the exact naming after the change in the NACE methodology.

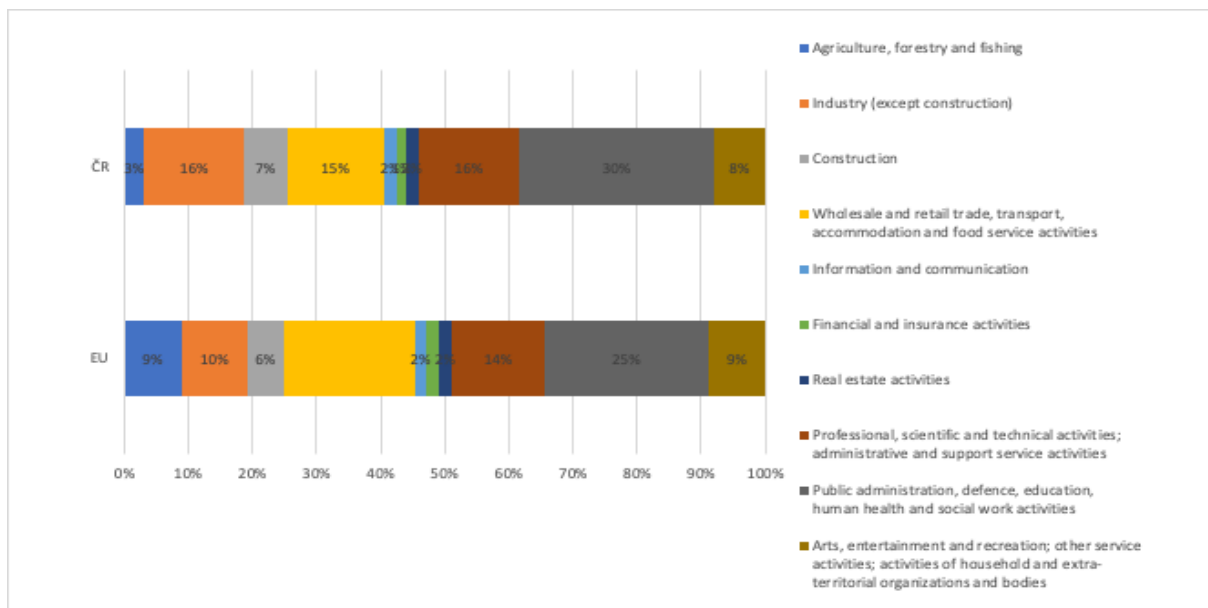
The most represented sectors in the EU and the Czech Republic were public administration, defense, education, human health, and social work activities. The share of workers in this sector in 2021 was 25.4% in the EU and 30.2% in the Czech Republic. Furthermore, the most represented sectors in the EU were Wholesale and retail trade, transport, accommodation, and food services - 20.2% and Professional, scientific and technical activities; administrative and support service activities - 14.3%, followed by Industry (except Construction).

The least represented sectors in the EU in 2021 were Financial and insurance activities - 1.7%, Information and communication activities - 1.96%, and Real estate activities - 2.2%. In the Czech Republic, the most represented sector was Professional, scientific, and technical activities; administrative and support service activities - 15.9%, followed Industry (except Construction) - 15.5%, and Wholesale and retail trade, transport, accommodation, and food services - 15.1%.

As in the EU, the least represented sectors are Financial and insurance activities - 1.4%, Real estate activities - 1.88%, and Information and communication - 2.0%. On the other hand, arts, entertainment and recreation, other service activities, household activities, and extraterritorial organizations and bodies account for 8.6% in the Czech Republic and 8.8% in the EU.

Public administration, defense, education, human health, and social work activities (Germany - 23% and France - 31%), Wholesale and retail trade, transport, accommodation, and food service activities (Germany - 22%, France - 15%) and Professional, scientific and technical activities; administrative and support service activities (Germany - 15% and France - 16%) are the most represented sectors in Germany and France, while Financial and insurance activities and Real estate activities are the least represented sectors in these countries - in all cases, the shares are around 2%.

Fig. 1: EU – Czech Republic –2021 - Industry comparison



Source: Eurostat, 2022

1.3 Male and female representation in each sector

There is an increasing trend in the case of men in all the monitored sectors in the given time horizon (2002-2021) and a decreasing trend in the EU sector in Agriculture, forestry, and fishing, as well as in the Czech Republic, and a similar situation in the case of women in the EU and the Czech Republic.

The largest share of men in the EU in 2021 was employed in the Wholesale and retail trade, transport, accommodation, and food service activities sector (21%), followed by Public administration, defence, education, human health, and social work activities (18%) and Professional, scientific and technical activities; administrative and support service activities (16%), and the smallest share of men in the Information and communication, Financial and insurance activities and Real estate activities each at 2%.

In the Czech Republic, the representation of men by sector is similar. Most men are employed in the Industry of Public administration, defence, education, human health, and social work activities (21%), and in contrast to the overall EU situation, 21% of men are employed in Industry (except Construction). 18% of men are employed in Professional, scientific and technical activities, administrative and support service activities, and 14% in Wholesale and retail trade, transport, accommodation, and food service activities. The minor proportion of men in the country work in Information and Communication, Financial and insurance activities, and Real estate activities in each of these sectors, with 2% of seniors aged 65 to 74 working in 2021.

In 2021, women were most likely to be employed in the EU in the Public administration, defense, education, human health, and social work activities sector at 36%, followed by Wholesale and retail trade, transport, accommodation, and food services at 19%, followed by Arts, entertainment and recreation activities; other services; activities of private households and extraterritorial organizations and bodies at 13% and 12% in Professional, scientific and technical activities; administrative and support service activities. On the other hand, the lowest percentage of women aged 65-74 in each of the above 1% were employed in Information and communication, financial, and insurance activities.

The most significant proportion of women aged 65-74 in the country in 2021 was employed in Public administration, defense, education, health, and social work activities, 44% in total, 16% were employed in Wholesale and retail trade, transport, accommodation, and food services, 13% were employed in Professional, scientific and technical activities; administrative and support service activities, 12% were engaged in Arts, entertainment and recreation activities; other activities; activities of the household and non-territorial organizations and bodies. On the other hand, the industries with the lowest representation of women in the country in 2021 were Construction, Information and communication, and Financial and insurance activities. In each of these sectors, 1% of women were employed.

Conclusion

The number of seniors is increasing; the reason is the aging of the population, the increasing life expectancy, and the improving physical and mental condition of seniors. Their work involvement is mainly due to the physical demands of the profession, which is why most seniors work in the health care, education, and administration sectors, a trend evident in both the Czech Republic and the EU. Another reason for the increasing involvement of seniors is the high demand for employees in these sectors.

According to the Czech Statistical Office, Labour force participation increased mainly as the respondents' level of formal education increased. This is also demonstrated by the indicator of the share of the number of working seniors by the level of education in the total number of seniors aged 60 and over. The differences in this share of working seniors are significant high. In 2020, only 4.9% of seniors with primary education were working, but in the group of seniors with secondary education with a high school diploma, the figure was already 18.1%. In the group of tertiary graduates, it was even 35.8%. Significant differences are evident in the 60-64 age group and the 65+ age group.

By comparing the situation in the EU and the Czech Republic, it can be concluded that the case in the Czech Republic shows both trends and follows the development of employment of seniors in the EU. Over almost 20 years, similar to the Czech Republic and the EU, the share of working seniors aged 65-74 has been steadily increasing, while some stagnation has been observed about Covid-19.

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