POTENTIAL OF THE SILVER ECONOMY: EMPLOYMENT OF OVER-WORKING-AGE POPULATION IN LATVIAN REGIONS

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Abstract
The latest forecasts of the European Commission (EC) show that the number of people of working age will drop by 42% by 2070. The aim of the paper is to analyse the socio-demographic structure of the employed population above working age in Latvia, including regional tendencies, to identify variations in the potential of the silver economy. Research methods: scientific publication analysis, analysis of previous research results, time-series analysis using trend analysis, cross-tabulations by gender, by administrative territories, by highest obtained education for employed persons older than 65 (they are already in old-age pensions, but go on with their work), by working a full-time job or part-time job; testing of statistical hypotheses by using chi-square criteria, correlation analysis, data analysis performed with SPSS. According to the Central Statistical Bureau of Latvia, the employability of the population at retirement age (65–74 years) was 24.1% in 2023. In 2023, 17% of males and 13% of females received an old-age pension not exceeding 300 EUR. Since the number of old-age pensions is small, it motivates to keep employment if health conditions are reasonable. Many persons of the post-working age are professionally interested in keeping their employment as they have reached a certain high level of professionalism. The official statistical data indicate that in many cases, a high number of the population above working age receiving solid salaries and wages (more than 6000 EUR/per month) is increasing every year.
Keywords: ageing population, over-working age employment, socio–demographic structure, regional disparities, silver economy potential.

Introduction

A European Commission report on demographic changes forecasts that the world population in the 21st century will increase, and ageing will become a more significant demographic tendency all over the world. The forecasts enlisted in the EC report on the impact of demographic changes in Europe show that the share of the population aged 65+ in 2030 is expected to be 25.3%, while in 2050 — 31.5% of the total number of population (EC, 2020). The economic and fiscal nuances of these changes are deep. Unless many older people work longer, the smaller share of the workforce will need to support a greater share of the retired population. The potential of the national economic development will be adversely affected by a rapid decrease of the population of working age (15–64 years) both as a proportion of the total population — 58.5% in 2030 and 53.1% in 2050 — and in absolute numbers (Bērziņš, 2024). Along with the decreasing labour force and high migration level, the necessity of using the current human resources, including within the context of active ageing, becomes more topical in Latvia, creating conditions for as inclusive employment as possible. Demographic changes affect society in a very wide scope. They affect both the general growth of the national economy and economy, budget, cost structure, competitiveness, and services of each region and local government. The forecasted tendencies ask to search for timely solution options since the demographic changes are to be a huge challenge to the capacity of the state's fiscal and economic policy. One of the solutions offered is the concept of a *silver economy*. Its philosophy is to change society's attitude towards the process of population ageing and economic adaptation to the increasing number of elderly people. The objective of the paper is to analyse the socio-demographic characteristics, including gender structure, administrative-territorial dimension, education, wages, and salaries of the over-working-age workforce, to identify the potential and variations of the silver economy for future research. The target group of this research is people of the post-working age - 65 years and older (seniors).

Literature Review

The concept of the silver economy in scientific literature and research is widely analysed, especially in relation to the economic impact of demographic ageing and adaptation of entrepreneurship to the needs of seniors. Studies reveal that population ageing is not only a social challenge but also a new economic segment with significant growth potential in which ageing is considered a resource and driver for change and progressive politics that can affect not only the consumer market but also the social and economic models (Lipp & Peine, 2024). Experience in different countries shows that seniors should be more involved in the labour market (Sloka et al., 2021). In an ageing society, it is crucial to empower older workers to remain active for longer. Longer working lives can allow people to update skills on the job and remain active, helping employers to retain staff while promoting knowledge transfers in multi-generational workforces. In a longevity society, opportunities emerge in diverse sectors and areas, such as technology, health and care, medicine, nutrition and well-being, education and lifelong learning, transport and financial services, and the social economy (EC, 2023). It is indicated that demographic change has created new opportunities in various sectors but has also added to certain risks of strategic dependencies. Europe's ageing population raises the potential of the 'silver economy' to a projected 28.1% of EU GDP in 2025 (EC, 2023).

Development of the silver economy in Europe is not uniform, rather, it is regionally specific since there are significant differences in the living conditions of seniors, not only in different countries (Roszko-Wojtowicz et al., 2024) but also in different administrative territories in the same country. These differences are affected by demographic, socioeconomic, political, and contextual factors. A complete understanding of the potential of the silver economy requires an analysis of diverse geographical and cultural contexts (Roszko-Wojtowicz et al., 2024). Many researchers analyse the impact of social and economic factors on the well-being and consumer habits of seniors, thus proving that financial security and economic stability have the most direct impact (Steptoe & Zaninotto, 2020).

Older people cannot be considered unable to work just because they have reached a certain age. The labour market and shortages of people willing to work will gradually require employers' investments in facilities related to the increase of operational readiness of seniors and the implementation of age management (referring, in fact, to the management of the ageing process of employees through state policy or collective bargaining). However, the development of this system on a large scale requires, above all, a deeper change in the mentality of executives because, as of now, older employees are evaluated by managers (often based on stereotypes) less favourably than younger people (Kubiak, 2016).

The age of people and its relation to employment and employability were analysed by many researchers, including within the context of ageism and bias against the age of employed persons (Cheung & Woo, 2021; Kleissner & Jahn, 2020; Posthuma & Guerrero, 2013; Vickerstaff & Van der Horst, 2021). Researchers (Berglund et al., 2017) have analysed various factors that affect the choice of labour force of an older worker to continue working. Researchers analyse the relations between the age of employed persons and work conditions, as well as personal characteristics and family-related factors in many countries, including Sweden, while other researchers (Kohlbacher et al., 2017) describe employment of seniors in Japan and Poland, and Steptoe & Zaninotto (2020) – in the United Kingdom.

Companies and employees should cooperate to adapt work practices and change biases and stereotypes against generations. Societies and communities that respect equality also emphasise the necessity to fight stereotypes and age-based discrimination, facilitate diversity and inclusion in the workplace, and provide equal opportunities to make contributions and develop (EC, 2023). Researchers have paid attention to several aspects of the involvement of older personnel in employment (Braslina, et al., 2024; Schnalzenberger, 2016; Sloka et al., 2024; Tipwong et al., 2022). Researchers have analysed important factors of employment of persons (Easterlin et al., 2011; Kalkis et al., 2024; Sergejeva & Zeidmane, 2023; Vanclay, 2002) where significant attention is paid to well-being and social conditions evaluation.

The silver economy at the European level is recognised as a strategic approach that simultaneously supports active and healthy ageing and promotes increased employment and poverty reduction (EC, 2018), as well as social inclusion and involvement in economic activities for persons after retirement age.

Materials and Methods

The materials used in this research are the database of the Official Statistics Portal of the Republic of Latvia and the data from the Labour Force Survey in 2023. Research methods: scientific publication analysis, analysis of previous research results, statistical data analysis; for data statistical analysis were used time-series analysis, cross-tabulations by administrative territories, by highest obtained education for employed persons older than 65 (they are already in old-age pensions, but go on with their work), by working a full-time job or part-time job; testing of statistical hypotheses (H_{01}: there are no statistically significant difference on education level in Latvia for employed persons older than 65 years; H_{02}: there are no statistically significant difference on administrative territory in Latvia for employed persons older than 65 years) by using chi-square criteria, correlation analysis, data analysis was performed with SPSS. The authors have used data from Official Statistics Portal databases from different parts of the database indicated by codes corresponding to respective data (PPP040; IRD031; DSN030m) for selecting data in the analysed age groups. The authors have used anonymised data from the Labour Force Survey available in CSV format and transferred them to SPSS to perform deeper statistical analysis to perform statistical data analysis for selected age groups, as it is indicated in the following tables.

Results and Discussion

Analysis of the age structure of the Latvian population and EUROSTAT forecasts show that the population ageing will continue. Since 1993, the share of the population above the working age has been higher than the share of children and teenagers, which means that there will be a smaller number of working-age population in future and the demographic load will increase. In early 2024, the population of those above working age and living in Latvia was 425,8 thousand, i.e., almost every fourth or 22.8 % of the population. According to data from the Central Statistical Bureau of Latvia, in early 2024, there were 369 persons of retirement age per 1000 persons of working age or 1 pensioner per 3 persons of working age and 254 children aged up to 14 years (CSP, 2024). As the current demographic tendencies continue, this ratio in 2060 is to be 1 pensioner per 2 persons of working age. In many countries of the European Union (EU), pressure on social budgets and care services will increase, possibly forming the two largest government

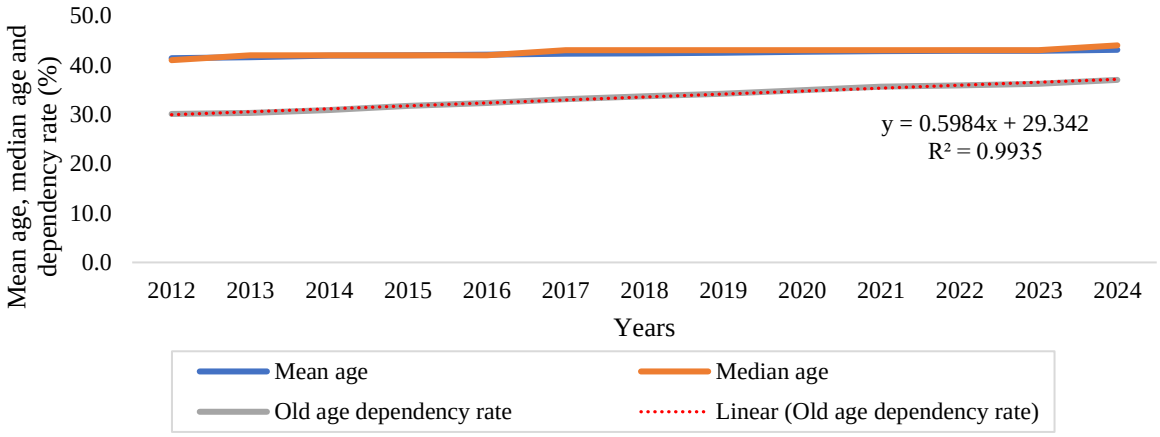
spending items. The cost of living is also constantly reminding us of itself.

Demographic changes and structural transformations also affect the dimension of regional competitiveness since less developed territories are experiencing a lack of labour force and skills. Comparing the regions and State cities in Latvia, the share of the working-age population (15–63 years) does not significantly differ; however, there is a difference between the share of the population below the working age (0–14 years) and above the working age (64 years and more). In early 2024, the largest proportion of the population above the working age was in Latgale (one-fourth or 25.4 % of the population of this region). Comparatively, the smallest number was in the Riga region – 21.6%. Considering the state's cities, the largest population above the working age live in Daugavpils (25.8%), Ventspils (25.8%), and Rezekne (25.1%), while the least – in Jelgava (21.3%) and Jekabpils (22.8%). In certain regions, both in Latgale – Kraslava Region (28.3%) and Vidzeme – Valka Region (28%), the population above the working age is already close to one-third of the regional population (CSB, 2024).

Tendencies of mean age, median age and old age dependency rate of the population in Latvia in 2012-2024 are included in Figure 1.

Figure 1

Mean age, median age and old age dependency rate of the population in Latvia at the beginning of the years 2012 - 2024



Source: Authors' construction and calculation based on OSP database IRD031 data.

Data indicate that the mean age (arithmetic mean – the most used degree mean) and median (the most used structural mean – it means that half of units is equal to median or less and half of units is equal to median or more) age in Latvia in 2021-2024 are almost the same but have increased in the analysed period; the dependency rate increased on average by 0,6 percent points annually from 2012 till 2024 (what is indicated by trend coefficient), the coefficient of determination is very high and is 0.9935.

A comparison of the average, median age dependency ratio of women and men shows that women live significantly longer in Latvia (Table 1). In 2024, the average age of women was 45.9 years, 6 years more than that of men – 39.9 years, respectively, the median age for women was 47 years, for men – 40 years, thus, the age dependency ratio for men was 25.6%, but for women, 48.1% (OSP, 2025b). Consequently, the proportion of women is also significantly higher among Latvian pensioners. Comparing the average pension amount between the two genders, pensions are higher for men than for women (in 2023: 547.89 euros versus 495.86 euros), which is most likely due to higher income during working life for men, while women have often prioritized taking care of their family and professional career (OSP, 2025a).

Table 1

Mean age, median age and old age dependency rate of the population (in %) by sex in Latvia in 2024

Statistical indicator	Total	Females	Males
Mean age, years	43.1	45.9	39.9
Median age, years	44.0	47.0	40.0
Old age dependency rate (%)	37.0	48.1	25.6

Source: Authors' construction based on the Official Statistics Portal of Latvia database IRD031 data.

Analysing the average age of the population, median age of the population and the age dependency rate in statistical regions in Latvia, authors conclude that in 2024, the Pieriga statistical region had a younger and more economically active population (old age dependency rate was 31.9%, for females – 40.4% and for males – 23.3%), while in Latgale (old age dependency rate was 40.9%, for females – 54.7% and

for males – 27.3%) and in certain regions in Vidzeme, there were older residents (OSP, 2025b).
It means that the most remote regions in Latvia are facing population ageing and possible depopulation. To examine the employment situation for the older population (over 65 years) in Latvia more deeply, data from the 2023 Labour Force Survey were also used. This survey allows for analysis from various aspects. The Labour Force Survey is conducted every year in all European Union and EU candidate countries (CSP, 2025a; CSP, 2025b). Data specific to Latvia are presented in Table 2.

Table 2
Distribution of persons in Latvia older than 65 years in the Labour Force Survey in 2023

Age groups	*Frequency*	*Percent*	*Valid Percent*	*Cumulative Percent*
65 – 74	5750	53.0	53.0	53.0
75 years and over	5097	47.0	47.0	100.0
Total	10847	100.0	100.0	

Source: Authors' calculations based on LFS in Latvia 2023 data.

Data of the analysed distribution for persons 65 years and older indicate that they were included in the LFS, as well as persons in the age groups 65–74 and 75 and over. The current research was interested in the employability of those persons, the distribution of those persons by administrative territories: urban or rural, by statistical regions of Latvia, by education level in those employed in analysed age groups, as well as if persons were employed full-time or part-time. The distribution of persons in employment in the age group 65–74 by administrative territories (urban and rural areas) and by statistical regions in Latvia is included in Table 3.

Table 3
Distribution of persons in Latvia in the age group 65–74 in employment by administrative territories and statistical regions by the Labour Force Survey in 2023

Statistical region	*Administrative territory*		*Total*
	Urban area	*Rural area*	
Riga	516		516
Pieriga	142	163	305
Vidzeme	49	61	110
Kurzeme	92	41	133
Zemgale	66	66	132
Latgale	106	36	142
Total	971	367	1338

Source: Authors' calculations based on LFS in Latvia 2023 data.

The data in Table 3 indicate that in the age group 65–74 years, most persons were employed in the Riga statistical region. Persons in the age group 65-74 were also employed in all statistical regions of Latvia – data were different, and in some statistical regions, more employment in this age group was in rural areas in Pieriga statistical region and Vidzeme statistical region. In other statistical regions of Latvia, more people employed in the age group 65–74 were in urban areas. It corresponds with findings reflected in scientific publications analysed in this paper. As mentioned in analysed scientific publications, more educated and trained persons are more successful in the labour market with higher education and vocational education, which is confirmed by data in the analysed employed persons age group 65 and older in Latvia (Table 4).
The data in Table 4 indicate that in Latvia, employed persons in the age group 65–74 years are employed with higher education and vocational education or professional secondary education in urban areas significantly more than in rural areas. As the survey shows, there are relatively fewer persons with basic education or less than basic education.
However, chi-square tests indicate that those differences are not statistically significant –calculation results are included in Table 5.

Table 4
Distribution of persons in Latvia in the age group 65–74 in employment by administrative territories and the highest level of education or training completed by the Labour Force Survey in 2023

The highest level of education or training completed	*Administrative territory*		*Total*
	Urban area	*Rural area*	
Higher education	420	126	546
Vocational education or professional secondary education	383	147	530
General secondary education	150	70	220
Basic education or less than basic education	18	24	42

Source: Authors' calculations based on LFS in Latvia 2023 data.

Table 5

Results of Chi-Square Tests on statistical significance of differences of employed persons in the age group more than 65 on the education level and administrative territory

Statistical indicators	*Value*	*df*	*Asymp. Sig. (2-sided)*
Pearson Chi-Square	25.979	3	0.000
Likelihood Ratio	23.743	3	0.000
Linear-by-Linear Association	19.218	1	0.000
N of Valid Cases	1338		

Source: Authors' calculations based on LFS in Latvia 2023 data.

Data indicated that there is no statistically significant difference in education level and administrative territory in Latvia for employed persons older than 65 years. The results of the correlation analysis are included in Table 6.

Data indicated that there is a statistically significant correlation between education level and administrative territory in Latvia for employed persons older than 65 years.

Table 6

Results of correlation analysis on the statistical significance of differences of employed persons in the age group of more than 65, on the education level and administrative territory

Analysed aspect	*Correlation indicator*	*Statistical region of populated area*
Statistical region of populated area	Pearson Correlation	1
	Sig. (2-tailed)	
	N	1338
Administrative territory	Pearson Correlation	0.248**
	Sig. (2-tailed)	0.000
	N	1338
The highest level of education or training completed	Pearson Correlation	0.085**
	Sig. (2-tailed)	0.002
	N	1338

**Correlation is significant at the 0.01 level (2-tailed).

Source: Authors' calculations based on LFS in Latvia 2023 data.

In Latvia, there are persons in the age group 65–74 with more full-time employment (Table 7).

Table 7

Distribution of persons in Latvia in the age group 65–74 in employment by administrative territories and full-time or part-time employment by Labour Force Survey in 2023

Full-time or part-time employed in the main job	*Administrative territory*		*Total*
	Urban area	*Rural area*	
Full-time	712	285	997
Part-time	254	78	332
No answer	1	2	3

Source: Authors' construction and calculations based on LFS in Latvia 2023 data.

Data indicate that in Latvia, in the age group 65–74, full-time employment in the main job is greater in urban areas. Always important are salaries and wages for all employees, and especially interesting is that for employed persons over 65 years, data are included in Table 8 (OSP, 2025c).

Table 8

Distribution of employees in Latvia in the age group 65 and more on salaries and wages in December 2024

Salaries and wages (EUR)	*65–69 years*		*70–74 years*		*75 years and more*	
	Number of employees	*Share of the number of employees with income, %*	*Number of employees*	*Share of the number of employees with income, %*	*Number of employees*	*Share of the number of employees with income, %*
TOTAL	39596	X	15804	X	7911	X
With income	37128	100.0	14596	100.0	7018	100.0
..less than 200.00	3123	8.4	2131	14.6	1776	25.3
..200.01-400.00	2931	7.9	1587	10.9	974	13.9
..400.01-700.00	5779	15.6	2706	18.5	1259	17.9
..700.01-1000.00	7091	19.1	2633	18.0	1070	15.2
..1000.01-1500.00	8096	21.8	2622	18.0	949	13.5
..1500.01-2000.00	4305	11.6	1260	8.6	430	6.1
..2000.01-2500.00	2261	6.1	633	4.3	227	3.2
..2500.01-3000.00	1257	3.4	366	2.5	117	1.7

Salaries and wages (EUR)	*65–69 years*		*70–74 years*		*75 years and more*	
	Number of employees	*Share of the number of employees with income, %*	*Number of employees*	*Share of the number of employees with income, %*	*Number of employees*	*Share of the number of employees with income, %*
..3000.01-4000.00	1168	3.1	330	2.3	106	1.5
..4000.01-5000.00	455	1.2	150	1.0	45	0.6
..5000.01-6000.00	236	0.6	60	0.4	17	0.2
..above 6000.00	426	1.1	118	0.8	48	0.7
With minimum wage or less	10660	28.7	5852	40.1	3761	53.6
With minimum wage	1430	3.9	510	3.5	199	2.8
Employees without income	2468	X	1208	X	893	X

Source: Authors' construction and calculations based on OSP database DSN030m data.

Data indicate that with minimum wage or less in December 2024 in Latvia there were 28.7% of employees with income in the age group 65-69 years; 40.1% of employees in the age group 70-74 years and among employees 75 years and older there were 53.6%. Data indicate also that with salaries 6000 euro and more there were 426 employed persons or 1.1% of employed persons with income in the age group 65-69 years; 118 employed persons or 0.8% of employed persons with income in the age group 70-74 years; 48 employed persons or 0.7% of employed persons with income in the age group 75 years and more. This indicates that persons of retirement age are economically active and earn solid salaries and wages.

Conclusions

1. The over-working-age employment in Latvia is not homogenous. It reveals employment tendencies of seniors by administrative territories, gender, education, and wages and salaries according to age groups. The potential of the silver economy needs to be studied together with territorial differences and senior living disparities.
2. In Latvia, there is a growing mean age and median age of the population, and it is growing the old-age dependency rate by 0.6 percent points every year since 2012.
3. The mean age and median age for females are greater than the one for males, and these numbers are growing annually. The old age dependency rate of the population in Latvia is much higher for females and is increasing annually. There are more women than men over the working age. Latvia has the largest gap in the EU.
4. In all statistical regions of Latvia, people employed representing the age group of 65–74 years are employed both in urban and rural areas. The 65–74 age group is mostly employed in urban areas. Latvia's outermost regions are facing an aging population and possible depopulation.
5. In Latvia, persons in the age group of 65–74 years are more employed with higher education and vocational education or professional secondary education, with a significantly higher rate in urban areas than in rural areas.
6. In Latvia, persons employed in the age group of 65 years and more receive rather high salaries and wages: even 6,000 euros and more indicates that persons at retirement age are economically active, earn solid salaries and wages as well as contribute to the economic development of Latvia.

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