THE LEVEL AND DIFFERENTIATION OF WAGES AND SALARIES IN SLOVAKIA: SECTORAL AND OCCUPATIONAL VIEW AND IMPACT OF DIGITAL TRANSFORMATION

Erika Ľapinová

Abstract

The purpose of our contribution is to assess the current state and outline future trends in labor market development, specifically regarding wage differentiation, in the context of digitalization. In the theoretical part, we pay attention especially to the impact of digitalization on wages and income inequality. In the analytical part, using the database of the Statistical Office of Slovak Republic Labor force survey, we have described the income level in Slovakia according to classification of economic activities, and classification of occupations and its dynamics over time. We did not do empirical research on the impact of automation and digitalization on the labor market in Slovakia, due to the low rate of adoption of these innovative technologies in both businesses and nonbusiness entities, as well as the relatively short duration of these innovative trends in Slovak practice. The extent and time horizon to which digitalization will affect the Slovak labor market and labor income inequality depends on 1. the digital readiness and the flexibility of the labor force themselves, 2. on the level of process digitalization among employers in business and non-business sphere, 3. as well as on the public strategic support of these innovative trends. As several studies mentioned in the article point out, the role of the state in this process of digitalization impacts on the world of work and income differences is undeniable. The state can, with the right tools, support the workforce's readiness for the rapidly changing needs of the labor market and help companies with their innovation plans, which benefit not just individual growth but also the sustainable development and prosperity of the economy and society as a whole.

Key words: wages/salaries across industries, Slovak Republic, impact of digitalization

JEL Code: J3 Wages, Compensation, and Labor Costs; O3 Innovation; Research and Development; Technological Change; Intellectual Property Rights

Introduction

The labor market in Slovakia, and similarly around the world under the influence of globalization, is undergoing significant changes due to automation, digitalization, the green transformation, the applications of ESG (environmental – social – governance) principles and demographic changes. These trends are changing both the demand and supply side of the labor markets. The demands on workforce flexibility are increasing. Business processes and technological procedures are also undergoing fundamental changes. See, for example, The Future of Jobs Report 2025, which brings together the perspective of over 1,000 leading global employers, collectively representing more than 14 million workers across 22 industry clusters and 55 economies from around the world, to examine how these macrotrends impact jobs and skills, and the workforce transformation strategies of employers, across the 2025 to 2030 timeframe. In Slovakia, these needs and their changes in the new demographic, technological and environmental conditions were defined by the Sector Councils Alliance (SCA) within the national project 'SCA - forecasting labor market trends and needs' (2025) or by The Slovak Employers´ Federation and Trexima (*Analytical and forecasting materials on expected employment trends up to 2030+. Strategic document WORK 4.0*.).

We have already written specifically about the impact of digitalization and automation on the labor market (see Lapinova, 2025), so in this article we continue with the topic of workforce remuneration and its differentiation, especially as a result of the trend of automation and digitalization. In the theoretical part, we describe existing theoretical and empirical knowledge on the topic of impact of digitalization on income inequality. In the analytical part, we describe the current differentiation of work incomes in Slovakia across sectors and occupations, as well as the employment rate from the same perspective. Finally, we suggest the expected developments in the near future. It is premature to make empirical predictions for Slovakia, given the current level of digitalization and the lack of empirical data as a result of this. Slovakia is still in the early stages compared to Europe, as shown by the values of the DESI (Digital Economy and Society Index). Denmark, Finland, and Sweden are the leaders in business digitalization according to DESI, while Estonia, Finland, and the Netherlands are the leaders in digitalizing public administration.[1] The level of automation and digitalization in both

[1] *„Further contextual dimensions may influence the extent to which the digital transformation is socially fair. The first of these is the digitalisation of businesses. However, Slovakia is lagging behind other EU countries in this regard. According to the DESI Index, the level of integration of digital technology in firms in Slovakia ranks as 21st in the EU27. Other indicators also confirm that there is a relatively low uptake of digital technologies in Slovak firms. Levels of digital capital intensity in Slovakia are lower than the EU average and, significantly, have declined between 2008 and 2018, while there has been positive growth on average at the EU level. However, looking at robotics, Slovakia is comparatively more advanced than the EU average. Robot density in both*

the business and non-business sectors will determine how quickly and fundamentally the demands on the workforce and its skills will changed, and, subsequently, how this will be reflected in wages and job differentiation both within sectors and across them. However, it is already clear that this is an inevitable development.

1 The current state of knowledge regarding the impacts of digital transformation[2] on income inequality

Among the earlier studies focused on the impacts of digitalization and automation on the labor market, we include, for example, Frey and Osborne (2013), Arntz et al. (2018), Nedelkoska and Quintini (2018). The first very negative forecasts about the impact of automation and digitalization on the job market were gradually adjusted, as the methodology was refined over time.

In the first decade of the twentieth century, Richiardi et al. (2025) paid attention to this topic. They quantitatively estimated the impact of the digital transformation on employment, wages, and income inequality within the European Union. There are various pathways through which the digital transformation may affect the employment and wage outcomes of individual workers. Advancements in digital technology could lead to displacement of workers and reductions in employment and wages (*displacement effect*, a process that is sometimes referred to as technological task *encroachment*). Countervailing is *productivity effect,* leading to increases in the demand for labor in nonautomated tasks, both in sectors undergoing automation and in sectors that are not affected. The digital transformation is accompanied by job creation and employment and wage gains. Whether the displacement effect or compensating mechanisms dominate at the aggregate level is ultimately an empirical question.

Productivity effects could occur through both a *price-productivity* and a *scale-productivity effect*. The former refers to technology leading to a compression in prices, which allows the industry to expand sales and take on more workers, while the latter states that lower

manufacturing and the overall economy is higher than the EU average, and growth has been positive between 2009 and 2019, though lower than the average EU rate." (Study on poverty and income inequality in the context of the digital transformation. Final report – part A: Ensuring a socially fair digital transformation, 2024). See also: Digital Decade, DESI 2026. Country Profiles, Slovakia. Available from: https://digital-decade-desi.digital-strategy.ec.europa.eu/datasets/desi/charts/country-profile?period=desi_2026&country=SK

[2] *Digitalization/digitization* refers to the process of converting analogy information, processes, or systems into digital formats, enabling the use of digital technologies and data for storage, processing, analysis, and communication. *Digital transformation* refers to the comprehensive and strategic integration of digital technologies, processes, and capabilities across various aspects of an organization or society, leading to fundamental changes in how they operate, deliver value, and interact. It involves leveraging digital advancements to drive innovation, enhance efficiency, and adapt to the evolving demands of the digital age.

aggregate prices may lead to an expansion in the local economy and associated spill-over effects whereby advanced industries increase their demand for labor. Additionally, increased automation can trigger capital accumulation, which, in turn, is associated with increased demand for labor. Finally, automation can increase the productivity of tasks that have already been automated (the so-called 'deepening of automation'), which may be related to increased productivity but not displacement Richiardi et al. (2025)

Automation technologies can reduce both the relative and sometimes real wages of workers specialised in routine and automatable tasks. On the contrary, occupational groups that do not experience task displacement may see wage gains. This reasoning is in line with the *skill-biased* and *routine-biased* technological change hypotheses (respectively, SBTC[3] and RBTC[4]). According to the SBTC hypotheses, technological change *increases* the productivity of some skill groups (that is, high-skilled occupational groups). Conversely, the RBTC hypothesis, which conceptualizes jobs as bundles of tasks, posits that automation both increases the productivity of tasks previously performed by workers and enhances the productivity of capital in its current task. Specifically, the RBTC hypothesis explains the decline in demand for middle-skilled labor, therefore contributing to occupational polarisation (Lenzi and Panzera, 2025).

Although the aforementioned effects of this hypothesis on employment are evident, its implications for wages are more complex. When displaced by automation, workers often transition into lower-paid service occupations, exerting downward pressure on wages. Importantly, the reallocation of automation-displaced workers—typically mid- and low-skilled, manual, and routine manufacturing workers—into low-skilled service jobs can also produce *ripple effects*, which means that displaced workers can start competing against others for nonautomated tasks and jobs, driving down wages and spreading the effects of automation more broadly throughout the population. Therefore, automation may exert an overall downward pressure on wages, in both automating and nonautomating sectors, with significant consequences for both income and wage inequalities. 'Considerable *nuances have emerged about the adverse effects on workers arising from the adoption of new technologies depending on various combinations between the effects of reinstatement, displacement, productivity, and*

[3] *Skill-biased technological change* refers to a phenomenon in which technological advancements and automation disproportionately favour workers with higher levels of skills and education, leading to increased demand and higher wages for skilled workers while reducing demand and potentially lowering wages for low-skilled workers.
[4] *Routine-biased technological change* refers to a pattern of technological advancements that disproportionately affect routine or repetitive tasks, often replacing or reducing the demand for middle-killed jobs while increasing the demand for both low-skilled and high-skilled jobs.

composition effects in different types of firms, sectors, periods of time and territorial contexts', wrote Lenzi and Panzera (2025).

The impacts of digitalization on income inequality depend largely on a country's readiness for transformation, both in terms of education and infrastructure. Consoli et al. (2023) investigated the relationship between digital skills of the workforce and income inequalities within regions. By combining three databases - EU-LFS, EU-SILC and European Skills/Competences, Qualifications, and Occupations (ESCO) - the analysis studies the relationships between digital skills and income inequalities for an unbalanced panel of 103 European regions for the period 2003-13. The results show that the relationship between digital skills and inequalities varies substantially across income groups and, in particular, that digitalisation exacerbates inequalities among the less affluent, whereas it mitigates them among those with higher income levels. Richmond and Triplett (2017) documented the fact that, on the one hand, improvements in infrastructure are expected to expand economic opportunities for previously underserved populations. On the other hand, ICT growth may exacerbate inequality due to differential access and skill premiums. Similarly, Adam and Alhassan et al. (2025) examine the relationships between digital transformation, digital inclusion, ICT regulation, and economic inequality. Their study focuses on how digital transformation, digital inclusion, and ICT regulation are connected to economic inequality around the world.

In studies focused on the impact of digital transformation on income inequality, opinions continue to arise about the different effects in developed and developing countries. According to Nguyen (2022), in advanced economies with high levels of development, due to a low digital gap and high levels of education, the poor (low-income people) can easily access digital technology to improve their skills and knowledge. They are easier to find high-income jobs, which narrows the income gap between low-income and high-income individuals, thus decreasing inequality. In developing economies with low levels of development, on the contrary, due to a high digital gap and low levels of education, the poor (low-income people) cannot easily access digital technology. The rich (high-income people) can access financial progress in digital technology to enhance skill and knowledge. It is easier for them to find a high-income job and get promoted, which widens the income difference between low-income and high-income individuals, thus increasing income inequality.

Nguyen (2022) analysed 30 advanced economies and 35 developing economies between 2002 and 2020. The results of his study indicate that 1. digitalization narrows income inequality in developed economies, but widens it in developing economies, 2. the economic growth –

income inequality relationship is U-shaped as real GDP per capita rises from low (developing economies) to high (advanced economies) and 3. unemployment increases inequality in two groups. His study findings also suggest some crucial implications for the design, formulation, and implementation of regulations and policies related to digital development.

The study of Khyareh (2025) examines the non-linear relationship between the development of the digital economy and income inequality in 40 developing economies between 2010 and 2022, employing a dual-model econometric framework. The analysis shows that the digital economy reduces income inequality, but according to the author's observation, its marginal effects depend on the thresholds of economic development. „The results demonstrate a U-shaped relationship, where the inequality-mitigating impact of digitalisation is strongest at intermediate economic development levels, reducing the Gini coefficient by 0.31 units per unit increase in the Digital Economy Index. Below this threshold, infrastructural and literacy gaps constrain equitable access to digital benefits, while above it, diminishing returns emerge due to labor market precarity and saturation effects ' Khyareh (2025).

Zhang et al. (2025) by pooling data from 97 countries between 2008 and 2016, run a nonlinear regression model with fixed effects to analyse the impact of digitalization on income disparity and test the mediating and moderating effects of various macroeconomic variables. A U-shaped link is identified between digital divides and income inequality in upper to middle-income countries, although an inverted U-shaped relationship exists in low-income and lower to middle-income nations. Financial inclusion, technological advancement, and unemployment autors found to be significant mediators, while education is a significant moderator in changing the relationship between digitalization and income distribution.

The authors differed between unequal access to technology (first digital divide, FDD) and different levels of usage (second digital divide, SDD). For upper-middle-income countries, their research shows that FDD, which focuses on information symmetry, could narrow income inequality, although SDD that deals with abilities and skills of ICT usage, may exacerbate income polarization. In high-income countries, digitalization generally mitigates income inequality. FDD and SDD in these countries are negatively related to income disparities, although the effect of SDD is insignificant. 'Overall, the richest nations have done a better job in closing the digital divides than the rest of the world. However, digital disparities are still found between urban and rural areas and between different age groups, sex, and races, leading to significant economic inequalities in these countries. Moreover, such a relationship could be changed by certain macroeconomic conditions, wrote Zhang et al. (2025). Education was found to be a contextual factor.

According Zhang et al. (2025*): "In emerging economies, such as China and India, which are characterized by rapid economic growth with strong ICT development, the skills and intensity of ICT usage differ substantially between different demographics. Relatively wealthier people usually have higher educational attainment and are equipped with sufficient skills in the use of various technologies. ICT helps them better access and process digital resources and information, which becomes a new channel for them to earn (extra) income. Individuals from disadvantaged backgrounds, however, often lack learning support for new technologies and may simply use ICTs, say the Internet, for entertainment, which, of course, does not bring in additional income or would even cut their income considering the opportunity cost of the time they spend online."*

2 Differentiation of labor income in Slovakia by industries and occupations

We focused the analytical part of the work on describing the state and development of wage levels and their intersectorial and interoccupational differentiation in Slovakia over a selected period. Slovakia has long been known in international rankings for its low level of income inequality, measured by the Gini coefficient. However, income differences are evident. Labor incomes make up the majority of the incomes of the working population, which also supports the non-working preproductive population, and on the other hand, the level of labor incomes also determines the level of old-age pensions in the postproductive phase of people's lives.

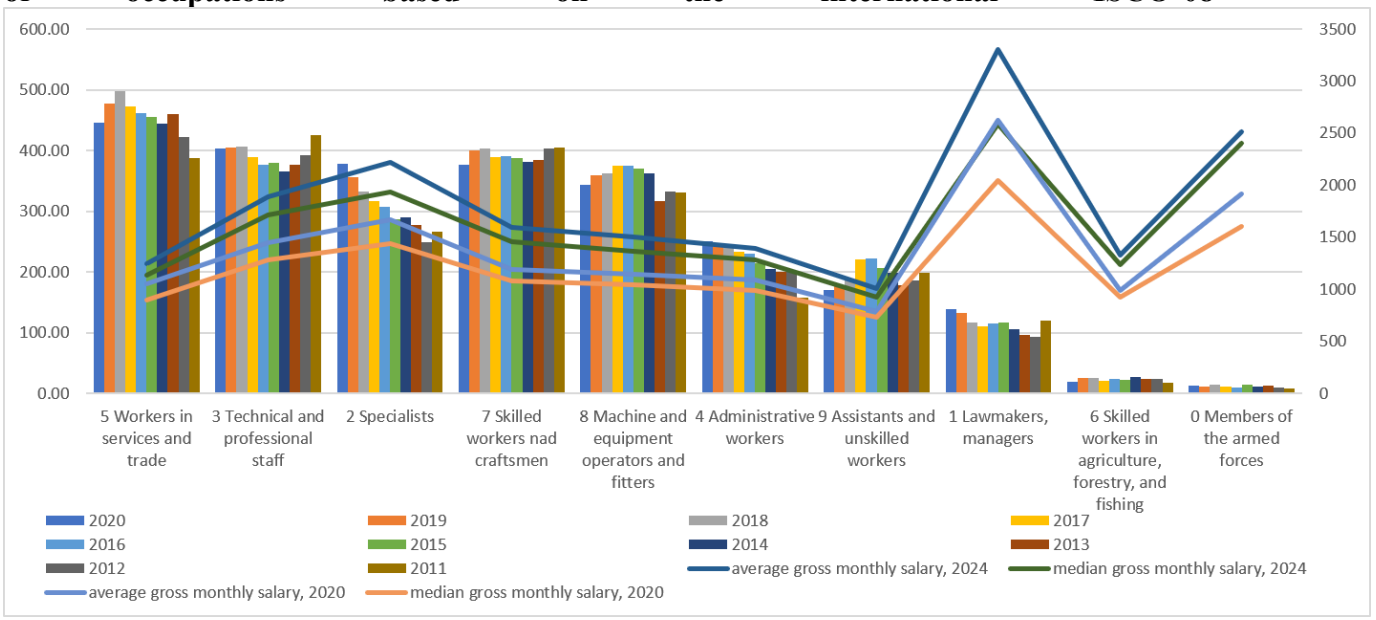
The labor market in Slovakia, like elsewhere in Europe, is undergoing significant changes. In the theoretical part of the work, we identified these trends and also hinted at the potential possible developments in employment and remuneration, especially when it comes to technological trends due to automation, digitization, and digital transformation.

Workers in services and trade, technical and professional staff, and specialists are the three most represented job categories. Specialists, administrative workers, and managers are professions that have seen steady growth over the period (see more details in Figure 1). The data are arranged in descending order based on the number of people in each category of job classification in 2020.

Lawmakers, managers, members of the armed forces, and specialists are professions with the highest average and median wages. According to labor market forecasts up to 2030, the number of employed people by job classification will not change significantly, except for specialists (see Analytical and forecasting materials on expected employment trends up to

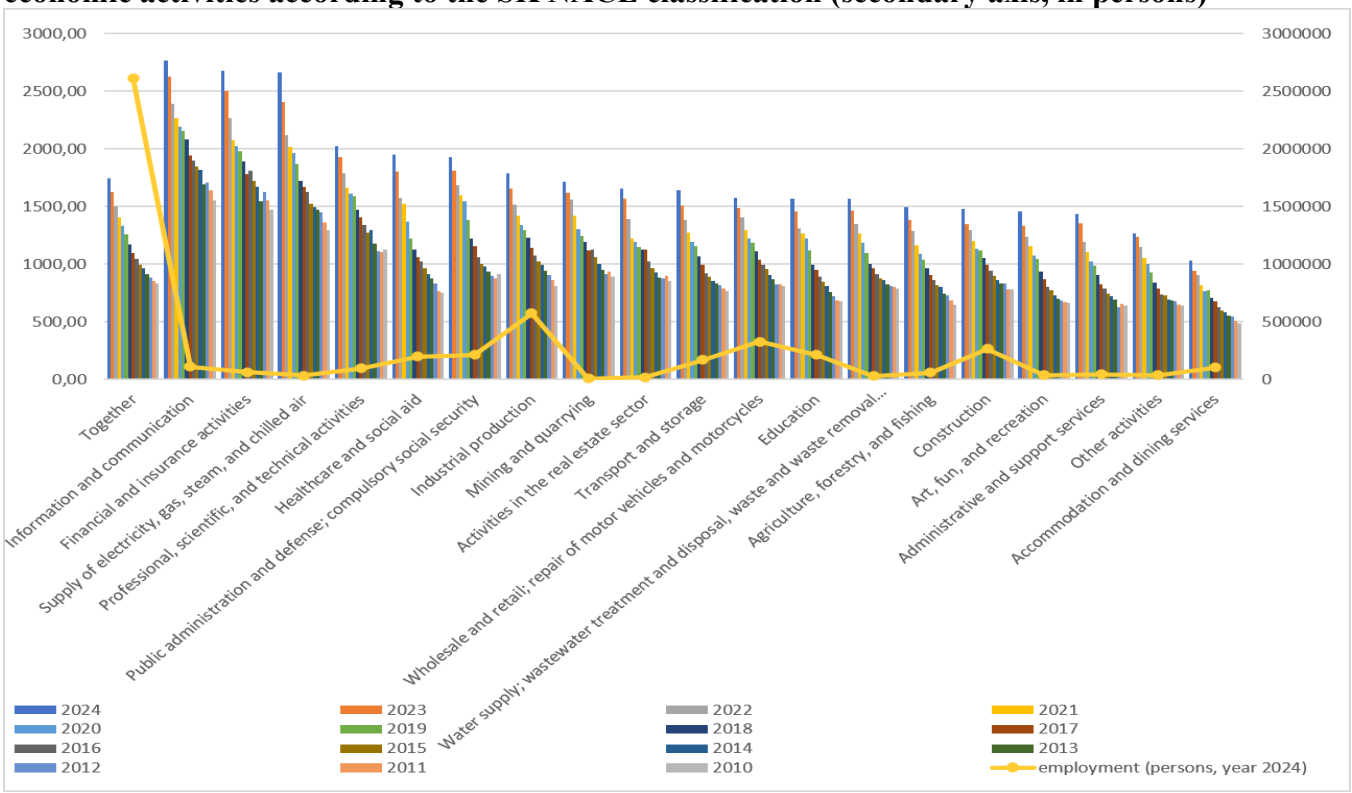
2030+. Strategic document WORK 4.0. Republic Union of Employers and Trexima, Slovakia, date of publication n.a.).

Fig. 1: Employment in Slovakia (in thousand persons) and average and median gross salaries (in EUR on secondary axis) according to SK ISCO-08, the national classification of occupations based on the international ISCO-08



Source: Slovak Republic Statistical Office, Labor Force Survey, Available from: https://datacube.statistics.sk/#!/view/sk/VBD_SLOVSTAT/np2003rs/v_np2003rs_00_00_00_sk

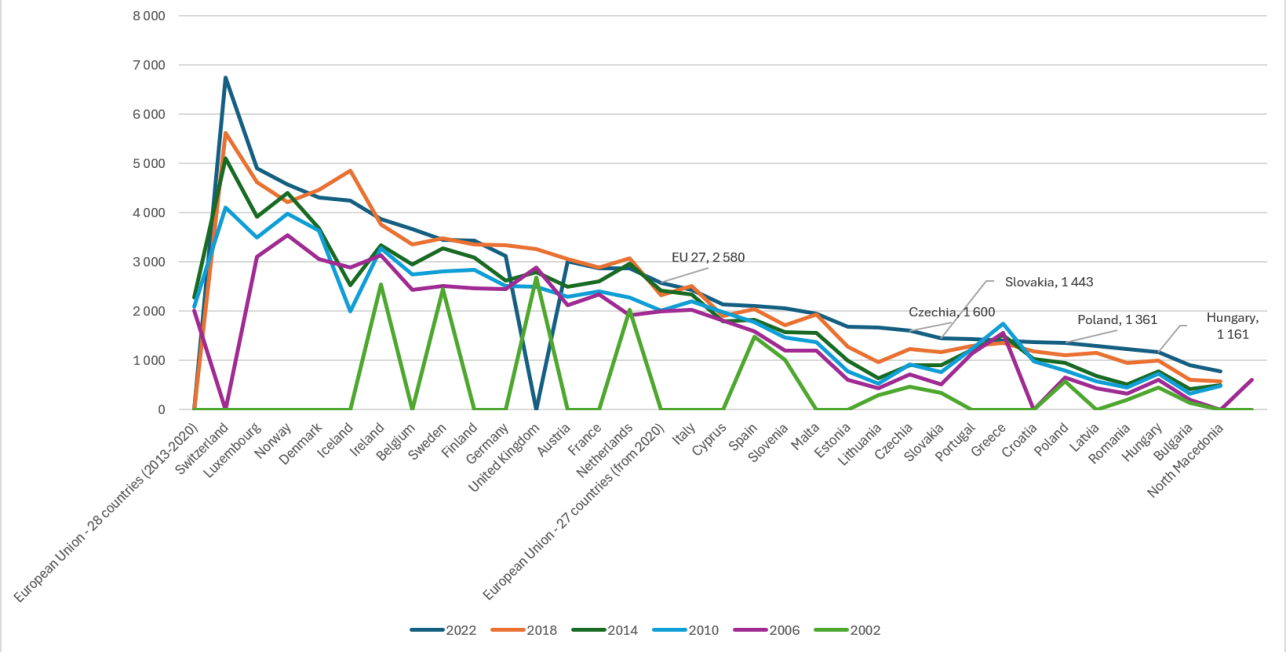
Fig. 2: Average gross nominal monthly salary (EUR) and employment in Slovakia by economic activities according to the SK NACE classification (secondary axis, in persons)



Source: Slovak Republic Statistical Office, Labor Force Survey, Available from: https://datacube.statistics.sk/#!/view/sk/VBD_SLOVSTAT/np2002rs/v_np2002rs_00_00_00_sk; https://datacube.statistics.sk/#!/view/sk/VBD_INTERN/pr0002qs/v_pr0002qs_00_00_00_sk

The average wage in the different sectors of Slovakia's national economy grew between 2012 and 2024 from 888 euros to 1,748 euros, with the median rising from 703 to 1,434 euros. In Figure 2, you can see the differences in average wage levels by sector according to the NACE SK classification. The sectors are arranged in descending order based on their average wage, starting with Information and Communication, Financial and Insurance Activities, and Supply of Electricity, Gas, Steam, and Air Conditioning. The lowest average earnings are in Accommodation and Dining Services, Administrative and Support Services, Arts, Entertainment, and Recreation, and Construction. To make it clear which group of employees is represented, Figure 2 also shows the number of people working in each sector. Industrial Production, Wholesale and Retail, and Construction are the sectors with the highest share of employment in Slovakia. The Slovak Employers´ Federation projects a very similar employment structure up to 2030. These categories of economic activities remain, in this short-term horizon (forecast until 2030), the ones with the highest number of employees in Slovakia: 1. Wholesale and retail trade, transport and storage, accommodation and food services, 2. Industry, 3. Public administration, defense, social security, education, healthcare, social assistance.

Fig. 3: Monthly mean earnings in EU countries (EUR)



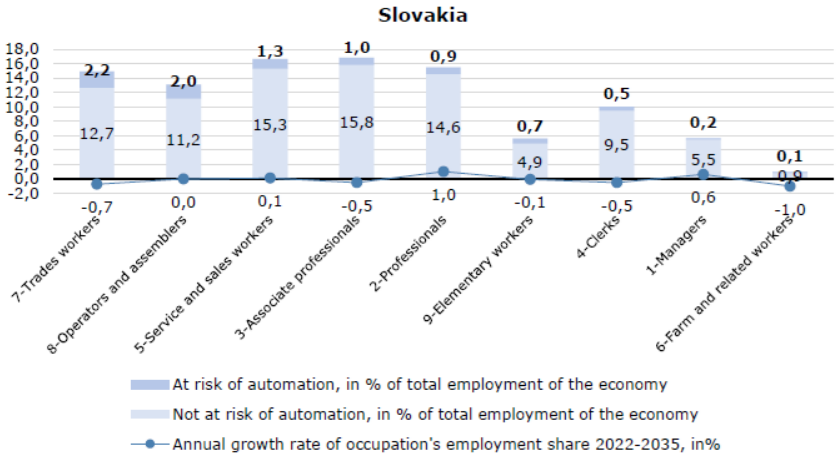
Source: Eurostat database, available from: https://ec.europa.eu/eurostat/databrowser/view/earn_ses_monthly/default/table?lang=en Note: The data are sorted in descending order by year 2022

For the sake of international comparison of median wage levels, we also included a Figure 3. The countries are arranged by median wage level in 2022, descending from Switzerland,

Luxembourg, Norway, Denmark down to Romania, Hungary, Bulgaria, and North Macedonia at the bottom of the list. In Figure 3, for comparison purposes, in addition to Slovakia, other V4 countries are also highlighted, as well as the European median values for the EU-27, tracking the development in intervals between 2002 and 2022.

We took Figure 4 from the Study on poverty and income inequality in the context of digital transformation. Final report – part A: Ensuring a socially fair digital transformation (2024) to highlight the latest estimates of the impacts of automation and digital transformation specifically in the Slovak context. There exist several different estimations of such impacts specifically for Slovakia, but we consider these data to be the most realistic of the estimates known so far. The predictions are based on the harmonized data from CEDEFOP.

Fig. 4: Employment shares of occupations (at ISCO-08 1 digit level) - split into subshares 'not at risk' and 'at risk' of automation (2022) - and projected annual growth rate



Source: Study on poverty and income inequality in the context of digital transformation. Final report – part A: Ensuring a socially fair digital transformation. Luxembourg (2024). Elaboration on Cedefop data (risk of automation calculated by Cedefop at EU27 level by ISCO-08 1 digit level for 2022) applied to Eurostat data (share of employment by occupation, lfsa_egais, 2022).
Note: The numbers preceding the occupations are the ISCO-08 codes. Occupations are ranked from the highest to the lowest share of workers who present a risk of automation. The vertical sum of the two components (darker blue and lighter blue) gives back the total employment share by occupation (in % of total employment in the Member State).

Given the early stages of this process in Slovak business practice as well as in the public, non-business sector, it is still difficult (due to the lack of practical data, which is typical for the beginnings of any transformative change) to predict the impact of digital transformation on income inequality in the Slovak population. It will primarily depend on the level of digital transformation in practice, the skills and flexibility of the workforce with respect to these innovative processes, but also on the assistance and support of the state for both sides of the

labor market, the time frame, and the extent to which digital transformation will affect income levels and population differentiation, and thus how socially 'fair' it will be.

Conclusions

There are many theoretical and practical studies on the topic of automation and digital transformation and their impact on the labor market. Different, often conflicting results often come from different viewpoints on the topic (for example, effects of digital transformation on professions as such, vs. on the digitizability of individual tasks within professions; potentially automatable processes vs. processes that are actually automated and digitized in Slovakia; digital transformation in developer and developing countries; digital transformation effects in low-, middle-, and high-income groups of population). Fewer studies, compared to those focusing on the impacts of digitization on the labor market, particularly look at how digital transformation affects income inequality/labor income inequality in population. In the theoretical part of our contribution, we tried to explain the background of problematics digital transformation impacts on wage inequality behind those different opinions and claims of some authors. In the analysis section of our contribution, we describe wage level and differentiation across sectors and professions in Slovakia and its dynamics over selected time period. Given the level of digitalization and the short time frame of digital transformation practice in Slovakia, the potential impacts of digitalization on the labor market and remuneration, particularly from an occupational and sectoral perspective, were not the subject of our empirical research.

We agree with the views of authors like Zhang et al. (2025), Baffour Gyau et al. (2025) and Xiao et al. (2024), also mentioned in the article, on the need for systematic state support for the digitalization process, in order to ensure an even distribution of the benefits of digitalization across the population and to prevent unwanted income inequality in countries undergoing digital transformation.

The degree to which transformation will affect individual sectors, individual companies or institutions, their employees, and their incomes will depend on many actors. The following contextual dimensions may influence the extent to which the digital transformation is socially fair: 1. rate of digital transformation of Slovak businesses, especially small and middle companies, 2. digital skills of the labor force of all ages, 3. state support of business and public sector digital transformation and also state support of digital literacy and flexibility of labor force of all age groups and income levels. First, it is necessary to emphasize the readiness of companies for digital transformation and their competitiveness on both a national and global

scale. Second, the employees themselves, their digital skills, and adaptability. As we pointed out in the theoretical part, digitalization has different impacts on employees with digital skills and those without them, on employees who are adaptable and ready to learn and retrain throughout their working life versus those without this adaptability and flexibility in acquiring the knowledge and skills needed for the labor market. Finally, the role of the state in this process is irreplaceable and unique. Currently Slovakia has developed a strategy for digital transformation and digital skills at the national level, there also exist analytic and prognostic studies on implications of those innovative trends on the labor market and on their partial sector-specific segments. Now, it will be important to achieve implementation in practice. It is a complex process involving many participants.

Acknowledgments

With support of grant 1/0411/2024 *'The impact of economic public policy tools on the digital readiness of companies'* from Scientific grant agency of the Ministry of Education, Science, Research, and Sport of the Slovak Republic. Thanks for the support.

References

Adam, I. O., Alhassan, M. D., Shaibu, A., Abdul Mumin, M., & Abdulai, I. (2025). The effects of digital transformation on inequality: Does the mediating effects of digital inclusion and ICT Regulatory Environment Matter? *Journal of Innovative Digital Transformation*, *2*(2), 156–175. https://doi.org/10.1108/jidt-04-2024-0007

Analytical and forecasting materials on the expected employment trends up to 2030+. Strategic document WORK 4.0. (date of publication n.a.) Bratislava. The Slovak Employers´ Federation and Trexima. Available at https://www.ruzsr.sk/media/136c44e9-da12-4b31-8203-46f6d9e93fda.pdf

Baffour Gyau, E., Li, Y., & Appiah, M. (2025). Global Digital Transformation: Discovering the impact of digitalization on income inequality in OECD countries, the moderating role of globalization. *Economic Change and Restructuring*, *58*(1). https://doi.org/10.1007/s10644-024-09843-2

Consoli, D., Castellacci, F., & Santoalha, A. (2023). E-skills and income inequality within European regions. *Industry and Innovation*, *30*(7), 919–946. https://doi.org/10.1080/13662716.2023.2230222

Digital Decade, DESI 2026. Country Profiles, Slovakia (2026). Available from: https://digital-decade-desi.digital-strategy.ec.europa.eu/datasets/desi/charts/country-profile?period=desi_2026&country=SK

Future of Jobs Report 2025. World Economic Forum (2025). Switzerland, Geneva. ISBN 978-2-940631-90-2. Available from: https://reports.weforum.org/docs/WEF_Future_of_Jobs_Report_2025.pdf

Khyareh, M. (2025). Impact of the digital economy on income inequality: Evidence from developing economies. *Journal of Economic Policy Researches / İktisat Politikası Araştırmaları Dergisi*, *12*(2), 318–334. https://doi.org/10.26650/jepr1633492

Lenzi, C., & Panzera, E. (2025). Income and wage inequalities from automation. A European perspective. *Review of Regional Research*, *45*(3), 395–420. https://doi.org/10.1007/s10037-025-00225-3

Lapinova, E. (2025). The impact of the digital age on people as workforce and consumers - an overview article . *RELIK 2024 Reproduction of Human Capital - Mutual Links and Connections Proceedings*, 2024. 175–200. https://doi.org/10.1093/ser/mwaf011

Richiardi, M. G., Westhoff, L., Astarita, C., Ernst, E., Fenwick, C., Khabirpour, N., & Pelizzari, L. (2025). The impact of a decade of digital transformation on employment, wages, and inequality in the EU: A “conveyor belt” hypothesis. *Socio-Economic Review*, *23*(3), 1225–1251. https://doi.org/10.1093/ser/mwaf011

Richmond, K., & Triplett, R. E. (2017). ICT and income inequality: A cross-national perspective. *International Review of Applied Economics*, *32*(2), 195–214. https://doi.org/10.1080/02692171.2017.1338677

Nguyen, V. B. (2022). Does digitalization widen income inequality? A comparative assessment for advanced and developing economies. *South East European Journal of Economics and Business*, *17*(2), 154–171. https://doi.org/10.2478/jeb-2022-0021

Sector Councils Alliance (SCA). *Analytical outputs of the National project „SCA - Forecasting labor market trends and needs“* (2025). Available from: https://www.alianciasr.sk/analyticke-vystupy-np-asr-2025/

Study on poverty and income inequality in the context of digital transformation. Final report – part A: Ensuring a socially fair digital transformation. (2024). Luxembourg: Publications Office of the European Union, 2024. ISBN 978-92-68-11191-8 doi:10.2767/012264

Tian, L., & Xiang, Y. (2024). Does the digital economy promote or inhibit income inequality? *Heliyon*, *10*(14). https://doi.org/10.1016/j.heliyon.2024.e33533

Xiao, A., Xu, Z., Skare, M., Qin, Y., & Wang, X. (2024). Bridging the digital divide: The impact of technological innovation on income inequality and human interactions. *Humanities and Social Sciences Communications*, *11*(1). https://doi.org/10.1057/s41599-024-03307-8

Yin, Z. H., & Choi, C. H. (2022). Does digitalization contribute to lesser income inequality? evidence from G20 countries. Information Technology for Development, 29(1), 61–82. https://doi.org/10.1080/02681102.2022.2123443

Zhang, J., Li, Y., & Fang, Z. (2025). Two digital divides and income inequality: A global perspective. *Journal of Applied Economics*, *28*(1). https://doi.org/10.1080/15140326.2025.2568247

Contact

Erika Ľapinova
Faculty of Economics, Matej Bel University in Banska Bystrica
Banska Bystrica, Tajovskeho 10, 975 90 Banska Bystrica, Slovakia
erika.lapinova@umb.sk