DEVELOPMENT OF HOUSEHOLD INCOME TOWARDS MODERN WELFARE ECONOMICS IN LATVIA

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ABSTRACT

Latvia in international comparisons is among the countries with rather low average income for households but rather high differences in income in households, especially in highest income households (richest quintile) characterised with significant indicators of variability in euro zone countries by Household and Consumption Survey conducted buy Bank of Latvia by methodology of European Central Bank in all eurozone countries and according EU- SILC (European Union Statistics on Income and Living Conditions) data. This current research is devoted to analysis of development of income and variability of income of hoseholds in Latvia in comparision with other OECD countries and eurozone countries. Research methods used: scientific publications and previous conducted research analysis, analysis of Household and Consumption Survey data, EU-SILC data on diferences in income depending household size, from regions and from territory (urban/rural), interviews of regional authorities on various income inequality reduction arrangements and applications in regions with lower income level. Data analysis methods: descriptive statistics (indicators of central tendency or location – arithmetic mean and median, indicators of variability – standard deviations, standard error of mean), cross-tabulations of household income by regions, by hosehold size, by territories, testing of statistical hypotheses on differences of arithmetic means by analysis of variance (ANOVA) for significance of income differences by regions and by household size. Results of analysis has indicated that Latvia has significant challenges where several innovative approaches could be applied to find best solutions for income inequality decrease and increase of overall satisfaction with life and support for economic development of the country.

Keywords: *EU-SILC, Household size, Income differences, Labour Force Survey, Regions*

1. INTRODUCTION

There are several analysis for reflecting income and results on income differences. Latvia in international comparisons is among the countries with rather low average income for households but rather high differences in income in households especially in highest income households (richest quintile) characterised with significant indicators of variability in euro zone countries by Household and Consumption Survey conducted buy Bank of Latvia by methodology of European Central Bank in all eurozone countries and according EU- SILC (European Union Statistics on Income and Living Conditions) data.

This current research is devoted to analyse the development of income and variability of income of hoseholds in Latvia in comparision with other OECD countries and eurozone countries. Research methods used: scientific publications and previous conducted research analysis, analysis of Household and Consumption Survey data, Labour Force Survey, EU-SILC data on dfferences in income depending household size, from regions and from territory (urban/rural), interviews of regional authorities on different income inequality reduction arrangements and applications in regions with lower income level. Data analysis methods: descriptive statistics (indicators of central tendency or location – arithmetic mean and median, indicators of variability – standard deviations, standard error of mean), cross-tabulations of household income by regions, by hosehold size, by territories, testing of statistical hypotheses on differences of arithmetic means by analysis of variance (ANOVA) for significance of income differences by regions and by household size. Results of analysis has indicated that Latvia has significant challenges where several innovative approaches could be applied to find best solutions for income inequality decrease and increase of overall satisfaction with life and support for economic development of the country.

2. THEORETICAL FINDINGS

Income differences have been analysed and discussed in many academic research findings world-wide as the differences in income often cause problems, it is stressed also by international organisations, like OECD which has discussed in the publication why from less inequality benefit all (OECD, 2015). World Economic Forum on regular basis analyses various aspects related to inequalities including gender wage gap (World Economic Forum, 2019). Researchers in publications often mention that different people, different countries (Filauro, Parolin, 2019; Papatheodorou, Dafermos, 2013; Katrougalos, 1996;. Frick, et al, 2010; Beblo, Knaus, 2001; Arts, Gelissen, 2002, Batraga, et al, 2020; Salkovska, et al, 2019), different nationalities (Saarela, Finnäs, 2004; Elwert, Tegunimataka, 2016; Dribe, Lundh, 2008; Chi, 2015), different gender (especially related to so-called glass ceilings) (Mueller, 2007; Schwartz, 2010; Davis, 1984; Arulampalam, Booth, Bryan, 2007), different education level (Pöyliö, 2019; Mare, 2016; Monaghan, 2015; Kalmijn, 2012; Fu, Heaton, 2008; Bouchet-Valat, 2014) and different age groups (Lindquist, Sjögren Lindquist, 2012; Batraga, et al, 2019; Fernández, Guner, , Knowles, 2005) feel and act differently in the same situation. Different and detailed analysis methods have been applied to estimate income inequality (Ferrera, 1996; Bourguignon, 1979) and measurements of structure of inequalities (Cowell, 1980) and evaluations of best approaches for analysis (Cowell, 1988). Researchers have investigated the structure of overall inequality in the EU-15 by investigating the extent to which total inequality is attributed to inequality between or within the individual European countries (Papatheodorou, Pavlopoulos, 2014). The decomposition analysis was applied for population subgroup utilizing micro-data from the ECHP and EU-SILC surveys. A number of inequality indices were employed to capture the different aspects of inequality and test the robustness of the results (Papatheodorou, Pavlopoulos, 2014). The analysis has shown that the between-countries differences account only for a small part of overall inequality in the EU-15. Furthermore, the contribution of the between county component to total inequality has shrunk dramatically. The overall EU inequality has been affected disproportionally by income disparities at the various parts of the income distribution in different countries (Papatheodorou, Pavlopoulos, 2014). Mentioned researchers recommend to reduce inequality within each country would be far more effective in reducing overall inequality in the EU than policies targeting to reduce only disparities between member states. The findings question the effectiveness of EU policy priorities to decrease inequality that have mainly focused on reducing cross-country and/or regions differences regarding certain macroeconomic indicators such as per-capita income (or GDP).

The evidence of researchers Papatheodorou and Pavlopoulos have suggested that the social protection system provides a useful tool in explaining the differences in inequality between countries and their contribution to overall EU inequality (Papatheodorou, Pavlopoulos, 2014). The purpose of the paper of researchers from China was to use cross-sectional data collected from six cities in China to examine the relationship between subjective wellbeing and male and female earnings and also to consider the contribution of differences in subjective wellbeing to explaining the gender wage gap (Mishra, Smyth, 2014). The paper have used survey data for 3,390 respondents working in a variety of blue collar and white collar jobs across a range of sectors including government, heavy and light manufacturing, mining and services in six Chinese cities: Chengdu, Dalian, Fushun, Fuxin, Fuzhou and Wuhan (Mishra, Smyth, 2014). The authors of the mentioned research paper have used the ordinary least squares, Lewbel instrumental variable and Blinder-Oaxaca decomposition to econometrically analyze the relationship between subjective wellbeing and gender wage gap. The paper of researchers Mishra and Smyth have found that the relationship between subjective wellbeing and wages is stronger for males than females. The authors noted that 0.2 percent of the observed gender wage gap can be attributed to differences in mean subjective wellbeing in favor of females, while 53.5 percent can be ascribed to gender differences in returns to subjective wellbeing in favor of males (Mishra, Smyth, 2014). The authors also have found evidence that the relationship between subjective wellbeing and income is non-linear and that income peaks at higher levels of subjective wellbeing for men than women. The role of differences in subjective wellbeing in explaining the gender wage gap is on research agenda also for other researchers in several countries. The aim of Nordic researchers was to study two native and equal population groups, Finnish speakers and Swedish speakers in Finland, to examine whether there is income variation across couples that differ on ethno-linguistic composition, and if such variation can be attributed to differences in education, educational homogamy and other observable characteristics (Härtull, Saarela, 2018) - was used detailed register-based household data. The authors estimate OLS models to compare endogamous and exogamous couples with respect to income of the man, the woman, and both partners, respectively. Endogamous Swedish-speaking couples are found to have on average 25 per cent higher income than other couples. The advantage was not related to differences in educational homogamy, but primarily to man's income, and roughly half of the income difference is explained by the higher educational level of Swedish-speaking men in endogamous couples. Although women in endogamous Swedish-speaking couples are higher educated than other women, and there is a higher degree of educational homogamy in these couples, their education has only a modest bearing on the income differential. In the case of Finland, educational homogamy did not affect income variation across native couples that differ on ethno-linguistic composition. Nordic researchers have concluded that endogamous mate selection seems to increase economic inequality, uphold gender inequality, and help the native minority group in sustaining its own community (Härtull, Saarela, 2018). There are numerous other relevant aspects analysed in other scientific publications.

3. EMPIRICAL RESEARCH FINDINGS

An important source for obtaining comparable and representative data from Eurozone countries is Household Finance and Consumption Survey (HFCS). The HFCS is a statistical survey conducted in the euro area countries by collecting and compiling data on the real assets, financial assets, debt, income and consumption of households. The HFCS is carried out by the European Central Bank and the national central banks of the EU Member States. In order to ensure the cross-country comparability of data and gain a uniform understanding on the situation in each euro area country, the HFCS is carried out in accordance with the methodology of the European Central Bank (Bank of Latvia, 2019). The HFCS is conducted once in three years.

In Latvia, the HFCS was conducted by Bank of Latvia in cooperation with the Central Statistical Bureau of Latvia which ensured the collection of the HFCS data and the use of the administrative data (Bank of Latvia, 2019). The HFCS was carried out using the sampling method and the sample was obtained by randomly selecting addresses. Broader representation was ensured for households with higher income. The HFCS data was collected on site, with the aid of the CAPI (Computer Assisted Personal Interviewing) (Bank of Latvia, 2019). Main data on annual gross income per household in Eurozone countries average and Baltic countries are included in table 1.

Table 1: Annual gross income per household arithmetic means – breakdowns in Eurozone average and Baltic countries in 2017 (thousand EUR)

Income	Latvia		Lithuania		Estonia		Euro zone	
	Mean	SE	Mean	SE	Mean	SE	Mean	SE
Total	14.3	0.3	10.8	0.6	22.9	0.4	40.3	0.3
Bottom 20	2.7	0.1	0.6	0.4	3.8	0.1	9.2	0.1
20-40	5.7	0.3	4.1	0.4	8.5	0.3	20.1	0.1
40-60	10.2	0.3	7.2	0.4	16.4	0.5	31.3	0.3
60-80	16.9	0.4	12.4	0.8	28.1	0.6	48.0	0.3
80-90	24.7	0.7	20.0	1.1	42.0	0.9	70.3	0.5
90-100	47.5	1.6	40.3	3.1	73.1	1.8	135.7	2.2

Source: Author's calculations based on European Central Bank Household Income and Consumption Survey, 2017

Data in table 1 indicate that Latvia has serious steps to be taken to increase annual gross income in comparison with Eurozone countries and also in comparison with Estonia. Especially strong measures have to be taken for bottom 20% of households as their average income per year in 95% confidence interval is between 2.5 thousand euro and 2.9 thousand euro. Main statistical indicators of disposable income in households of Latvia by statistical regions are included in table 2.

Table 2: Main statistical indicators of total disposable household income (anonymized) by statistical regions of Republic of Latvia in 2017 (EUR)

Statistical Regions of Republic of Latvia	Mean	N	Standard Deviation	Grouped Median	Standard Error of Mean
Rîga	13070.69	1913	11086.91	10028.38	253.49
Pierîga	13083.00	859	11693.28	9996.40	398.97
Vidzeme	9400.84	579	7772.30	7043.35	323.01
Kurzeme	10772.99	927	9345.37	8031.39	306.94
Zemgale	10305.06	857	9337.64	7285.57	318.97
Latgale	7658.45	879	6552.01	5736.26	220.99
Total	11179.81	6014	10022.00	8164.33	129.23

Source: Author's calculations based on EU-SILC data, 2017

Data of table 2 indicate that there are serious differences in income by statistical regions in Latvia with very low average income in Latgale and quite serious distribution of income, as half of households in Latgale had income less than 5.7 thousand euro and half of households in Latgale had income more than 5.7 thousand euro (characterized by median). Main results on testing statistical hypothesis on significance of difference in income by statistical regions with analysis of variance (ANOVA) are included in table 3.

Table 3: Testing statistical hypotheses on differences of total disposable household income (anonymized) by statistical regions of Republic of Latvia in 2017 (EUR) with ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.349E10	5	4.698E9	48.631	0.000
Within Groups	5.805E11	6008	9.661E7		
Total	6.039E11	6013			

Source: Author's calculations based on EU-SILC data, 2017

Results of ANOVA indicate that the income in regions of Latvia do differ statistically significantly with sig 0.00. Main statistical indicators of disposable income in households of Latvia by number of persons in the household are included in table 4.

Table 4: Main statistical indicators of total disposable household income (anonymized) by number of persons in the household of Latvia in 2017 (EUR)

Number of persons in the household	Mean	N	Standard Deviation	Grouped Median	Standard Error of Mean
1	5053.70	2133	4578.19	3542.80	99.13
2	10907.33	1948	7664.08	8741.74	173.65
3	16012.59	925	10535.03	13870.37	346.39
4	19117.56	619	11308.04	16950.39	454.51
5	21691.83	244	14077.38	19158.85	901.21
6	20741.80	91	11781.92	18687.99	1235.08
7	24203.90	37	16379.99	18548.00	2692.85
8	24568.51	7	13327.75	20760.68	5037.41
9	17354.07	6	12421.01	13009.16	5070.85
10	48174.51	2	2077.93	48174.51	1469.32
11	57334.24	2	18199.08	57334.24	12868.70
Total	11179.81	6014	10021.99	8164.33	129.23

Source: Author's calculations based on EU-SILC data, 2017

Data of table 4 indicate that there are marked differences in income by the number of persons in household in Latvia with significant differences in average income in families with 4 households indicating by high indicators of variability.

Table 5: Testing statistical hypotheses on differences of total disposable household income (anonymized) by number of persons in household of Latvia in 2017 (EUR) with ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.908E11	10	1.908E10	277.317	0.000
Within Groups	4.131E11	6003	6.882E7		
Total	6.039E11	6013			

Source: Author's calculations based on EU-SILC data, 2017

Main results on testing statistical hypothesis on significance of difference in income by number of persons in household in Latvia with analysis of variance (ANOVA) are included in table 5. Results of ANOVA indicate that the income by number of persons in household of Latvia do differ statistically significantly with sig 0.00. Main statistical indicators of distribution wages and salaries in Latvia in 2019 are included in table 6.

Table 6: Last month's net (after taxes) wage and salaries from the main job in Latvia

	Frequency	Percent	Valid Percent	Cumulative Percent
Up to EUR 284.57	2606	6.7	6.7	6.7
EUR 284.58 –EUR 426.86	1565	4.0	4.0	10.7
EUR 426.87 –EUR 711.44)	12276	31.4	31.4	42.1
EUR 711.45 –EUR 1422.87	18593	47.6	47.6	89.7
EUR 1422.88 and more	3235	8.3	8.3	98.0
Was not calculated	119	0.3	0.3	98.3
Was calculated, but was not paid	662	1.7	1.7	100.0
Total	39055	100.0	100.0	

Source: Author's calculations based on Labour Force Survey of Latvia in 2019

Main statistical indicators of distribution wages and salaries by urban and rural area in Latvia in 2019 are included in table 7.

Table 7: Last month's net (after taxes) wage and salaries from the main job by administrative territory in Latvia

	Administrative territory		
	Urban area	Rural area	Total
Up to EUR 284.57	1982	624	2606
EUR 284.58 –EUR 426.86	1331	235	1566
EUR 426.87 –EUR 711.44)	10236	2039	12275
EUR 711.45 –EUR 1422.87	15831	2762	18593
EUR 1422.88 and more	3073	162	3235
Was not calculated	0	119	119
Was calculated, but was not paid	662	0	662
Total	33115	5941	39056

Source: Author's calculations based on Labour Force Survey of Latvia in 2019

Main statistical indicators of distribution wages and salaries by persons attending training courses in Latvia in 2019 are included in table 8.

Table 8: Last month's net (after taxes) wage and salaries from the main job in Latvia depending from courses attended

	Purpose for person attending any training, courses, seminars (for work or overall interest) outside the regular education system within the last 4 weeks		
	Mainly job-related (professional)	Mainly personal/social	Total
Up to EUR 284.57	2392	214	2606
EUR 284.58 –EUR 426.86	1355	210	1565
EUR 426.87 –EUR 711.44)	11172	1104	12276
EUR 711.45 –EUR 1422.87	15839	2754	18593
EUR 1422.88 and more	3235	0	3235
Was not calculated	0	119	119
Was calculated, but not paid	662	0	662
Total	34655	4401	39056

Source: Author's calculations based on Labour Force Survey of Latvia in 2019

Statistical indicators of distribution wages and salaries by number of hours actually worked in main job during the reference week and gender in Latvia in 2019 are included in table 9.

Table 9: Last month's net (after taxes) wage and salaries from the main job in Latvia depending from hours worked during week

Sex		Number of hours actually worked in the main job during the reference week				Total
		0 hours	1-39 hours	40 hours	41 or more hours	
Male	Up to EUR 284.57	214	466	0	0	680
	EUR 284.58 –EUR 426.86	393	0	533	0	926
	EUR 426.87 –EUR 711.44)	0	0	1889	485	2374
	EUR 711.45 –EUR 1422.87	1540	678	4675	711	7604
	EUR 1422.88 and more	0	623	1546	307	2476
	Was not calculated	0	0	0	119	119
	Total	2147	1767	8643	1622	14179
Female	Up to EUR 284.57	965	350	612	0	1927
	EUR 284.58 –EUR 426.86	0	287	352	0	639
	EUR 426.87 –EUR 711.44)	1780	3390	4446	286	9902
	EUR 711.45 –EUR 1422.87	503	2288	8081	115	10987
	EUR 1422.88 and more	0	0	759	0	759
	Was calculated, but not paid	662	0	0	0	662
	Total	3910	6315	14250	401	24876

Source: Author's calculations based on Labour Force Survey of Latvia in 2019

Main statistical indicators of distribution wages and salaries by statistical region and gender in Latvia in 2019 are included in table 10.

Table 10: Last month's net (after taxes) wage and salaries from the main job in Latvia by statistical regions

Sex		Statical region of populated area						Total
		Riga	Pieriga	Vidzeme	Kurzeme	Zemgale	Latgale	
Male	Up to EUR 284.57	0	0	0	214	0	466	680
	EUR 284.58 –EUR 426.86	0	628	0	0	210	88	926
	EUR 426.87 –EUR 711.44)	821	150	131	932	77	263	2374
	EUR 711.45 –EUR 1422.87	3593	617	272	1082	1413	628	7605
	EUR 1422.88 and more	2162	0	171	143	0	0	2476
	Was not calculated	0	0	0	119	0	0	119
	Total	6576	1395	574	2490	1700	1445	14180
Female	Up to EUR 284.57	779	187	105	458	297	102	1928
	EUR 284.58 –EUR 426.86	0	113	0	199	0	326	638
	EUR 426.87 –EUR 711.44)	5459	93	629	647	1063	2010	9901
	EUR 711.45 –EUR 1422.87	7914	569	682	756	482	585	10988
	EUR 1422.88 and more	406	191	0	0	162	0	759
	Was calculated, but not paid	662	0	0	0	0	0	662
	Total	15220	1153	1416	2060	2004	3023	24876

Source: Author's calculations based on Labour Force Survey of Latvia in 2019

Main statistical indicators of correlation analysis of wages and salaries and gender in Latvia in 2019 are included in table 11.

Table 11: Last month's net (after taxes) wage and salaries from the main job in Latvia correlation by sex

Sex			Value	Asymp. Std. Error[a]	Approx. T[b]	Approx. Sig.
Male	Interval by Interval	Pearson's R	-0.382	0.007	-49.173	0.000[c]
	Ordinal by Ordinal	Spearman Correlation	-0.400	0.007	-52.030	0.000[c]
	N of Valid Cases		14180			
Female	Interval by Interval	Pearson's R	-0.256	0.005	-41.716	0.000[c]
	Ordinal by Ordinal	Spearman Correlation	-0.283	0.006	-46.515	0.000[c]
	N of Valid Cases		24876			

a. Not assuming the null hypothesis. b. Using the asymptotic standard error assuming the null hypothesis. c. Based on normal approximation.

Source: Author's calculations based on Labour Force Survey of Latvia in 2019

Research results indicate that there are statistically significant differences in wages and salaries by gender. Interviews with officials in Daugavpils region municipality have shown that even in the most economically depressed region innovative methods are applied for involvement in education process and providing social support for households living far from more populated areas.

4. CONCLUSION

Research world-wide has indicated that there are numerous innovative approaches in studies of best possible solutions for social inclusion and reduction of poverty and inequality depending on country, on education level of parts in society, on age groups, regions, involvement in education and training activities and gender. Results in different sources and analysis of these results regarding the situation in Latvia indicate to the importance of involvement in training activities in relation to higher wages and salaries. Improving the knowledge, skills and competences of the workforce reduces social exclusion and improves the quality of life. It must be remembered that both the quality of educational services and the interaction between education and the socio-demographic situation, which can affect income inequality, are important. However, incomes do differ in Latvia by statistical regions and by persons in households. Females have significantly lower salaries and wages than males.

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LITERATURE:

1. Arts, W., Gelissen, J. (2002). Three worlds of welfare capitalism of more? A state-of-the-art report. *Journal of European Social Policy*, 12(2), 137-158.
2. Arulampalam, W., Booth, A., Bryan, M. (2007). Is there a glass ceiling over Europe? Exploring the gender pay gap across the wages distribution. *Industrial and Labor Relations R*eview, 60(2), 163-186.
3. Bank of Latvia (2019). Household Finance and Consumption Survey, 2017.
4. Batraga, A., Salkovska, J., Braslina, L., Legzdina, A., Kalkis, H. (2019). New innovation identification approach development matrix. *Advances in Intelligent Systems and Computing*, 783, 261-273.

5. Batraga, A., Salkovska, J., Braslina, L., Kalkis, H., Skiltere, D., Legzdina, A., Braslins, G. (2019). Code of breakthrough innovations. *Advances in Intelligent Systems and Computing*, 903, 345-351.
6. Beblo, M., Knaus, T. (2001). Measuring income inequality in Euroland. *Review of Income and Wealth*, 47(3), 301-333.
7. Bouchet-Valat, M. (2014). Changes in educational, social class and social class of origin homogamy in France (1969-2011): greater openness overall but increased closure of elites. *Revue Francaise De Sociologie*, 55(3), 459-505.
8. Bourguignon, F. (1979). Decomposable income inequality measures, *Econometrica*, 47, 901-920.
9. Chi, M. (2015). Does intermarriage promote economic assimilation among immigrants in the United States? *International Journal of Manpower*, 36(7), 1034-1057.
10. Davis, K. (1984). Wives and work: consequences of the sex-role revolution. *Population and Development Review*, 10(3), 397-417.
11. Cowell, F.A. (1980). On the structure of additive inequality measures. *Review of Economic and Statistics*, 47(XLVII), 521-531.
12. Cowell, F.A. (1988). Inequality decomposition: three bad measures. *Bulletin of Economic Research*, 40(4), 309-312.
13. Dribe, M., Lundh, C. (2008). Intermarriage and immigrant integration in Sweden: an exploratory analysis. *Acta Sociologica*, 51(4), 329-354.
14. European Central Bank (2020). Household Finance and Consumption Survey, Wave 2017 – Statistical Tables, 69 p.
15. Elwert, A., Tegunimataka, A. (2016). Cohabitation premiums in Denmark: income effects in immigrant-native partnerships. *European Sociological Review*, 32(3), 383-402.
16. Ferrera, M. (1996). The "Southern Model" of welfare in social Europe. *Journal of European Social Policy*, 6(1), 17-37.
17. Fernández, R., Guner, N., Knowles, J. (2005). Love and money: a theoretical and empirical analysis of household sorting and inequality. *The Quarterly Journal of Economics*, 120(1), 273-344.
18. Filauro, S., Parolin, Z (2019). Unequal unions? A comparative decomposition of income inequality in the European Union and United States. *Journal of European Social Policy*, 29(4), 545-563
19. Frick, J.R., Grabka, M.M., Smeeding, T.M., Tsakloglou, P. (2010). Distributional effects of imputed rents in five European countries. *Journal of Housing Economics*, 19(3), 167-179.
20. Fu, X., Heaton, T.B. (2008). Racial and educational homogamy: 1980 to 2000. *Sociological Perspectives*, 51(4), 735-758.
21. Härtull, C., Saarela, J. (2018). Endogamy and income in native couples: the case of Finland. *International Journal of Manpower*, 39(2), 205-221.
22. Kalmijn, M. (2012). The educational gradient in intermarriage: a comparative analysis of immigrant groups in the United States. *Social Forces*, 91(2), 453-476.
23. Katrougalos, G.S. (1996). The South European welfare model: the Greek of welfare state in search of an identity. *Journal of European Social Policy*, 6(1), 39-60.
24. Lindquist, M.J., Sjögren Lindquist, G.J. (2012). The dynamics of child poverty in Sweden. *Population Economics*, 25(4), 1423-1450.
25. Mare, R.D. (2016). Educational homogamy in two gilded ages: evidence from inter-generational social mobility data. *The Annals of the American Academy of Political and Social Science*, 663(1), 117-139.
26. Mishra, V., Smyth, R. (2014). It pays to be happy (if you are a man): Subjective wellbeing and the gender wage gap in Urban China. *International Journal of Manpower*, 35(3), 392-414.

27. Monaghan, D. (2015). Income inequality and educational assortative mating: evidence from the Luxembourg Income Study. *Social Science Research*, 52, 253-269.
28. Mueller, S. (2007). Gender-based income disparity among self-employed professionals. *Journal of Enterprising Communities: People and Places in the Global Economy*, 1(4), 293-307.
29. OECD (2015). *In It Together: Why Less Inequality Benefits A*ll, OECD Publishing.
30. Papatheodorou, C., Dafermos, Y. (2013). What drives inequality and poverty in the EU? Exploring the impact of macroeconomic and institutional factors. *International Review of Applied Economics*, 27(1), 1-22.
31. Papatheodorou, C., Pavlopoulos, D. (2014). Income inequality in the EU: how do member states contribute? *International Journal of Social Economics*, 41(6), 450-466.
32. Pöyliö, H. (2019). Something Good Out of the Bad Times? The Impacts of Reduced Opportunity Costs on the Intergenerational Inequalities in College Enrollment. *Sociological Research Online*, 25(1), 23-45.
33. Saarela, J., Finnäs, F. (2004). Interethnic wage variation in the Helsinki area. *Finnish Economic Papers*, 17(1), 35-48.
34. Salkovska, J., Batraga, A., Braslina, L., Skiltere, D., Braslins, G., Kalkis, H., Legzdina, A. (2020). Four Conceptual Perspectives of Innovation Components. *Advances in Intelligent Systems and Computing*, 961, 72-82.
35. Schwartz, C. (2010). Earnings inequality and the changing association between spouses' earnings. *American Journal of Sociology*, 115(5), 1524-1557.
36. World Economic Forum (2019). Global Gender Gap Report 2020. 371p.