

ANALYSIS OF GENDER PAY GAP DIFFERENCES IN EUROPEAN COUNTRIES

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ABSTRACT

The phenomenon of the gender pay gap can be defined as the difference in women's and men's median salary regardless of their ethnicity, religion, age or race. The gender pay gap has been an interesting and fairly well investigated subject of economic, sociological but also psychological and gender studies. Since it was first documented and analyzed, the authors have noticed a decrease in the gap since 1970s due to the rise in the awareness of the problem but also due to the changes in the economic and educational circumstances of women. Nevertheless, the gender pay gap still exists in all the countries of the world and it results in women earning considerably less than men on average. Different papers and academic authors have dealt with issues of identifying factors and determinants causing the gender pay gap, such as differences in qualifications and treatment of workers, but also the economic, primarily financial, social and psychological consequences of this phenomenon. Whatever the focus of the research, all point to the fact that the gender pay gap affects both the labour market and working conditions both men and women face in the workplace. The gender pay gap has been thoroughly investigated in the developed countries, such as USA, Australia, Canada or UK and France, but less attention has been given to the less developed countries of Europe. This paper explores the differences in the gender pay gap among European countries with an emphasis on the Republic of Croatia. Different aspects of the gender pay gap in Croatia have also been explored. This analysis has resulted in uncovering the need for development and application of appropriate measures aimed at reducing the gender pay gap in order to ensure a healthy and successful social and economic development of the country. In the conclusion of the paper, recommendations for future research have also been presented.

Keywords: gender, workplace, statistical analysis.

INTRODUCTION

The gender pay gap is the difference between men's and women's pay, based on the average difference in gross hourly earnings of all employees. In the European Union, the gender pay gap is referred to officially as the 'unadjusted gender pay gap', and it is defined as the difference between the average gross hourly earnings of men and women expressed as a percentage of the average gross hourly earnings of men and is calculated for enterprises with 10 or more employees, according to the European Commission (2013). The adjusted gender pay gap is measured if the organization offers women and men equal pay for equal/substantially similar work. Adjusted gender pay gap measures the pay gap after adjusting for various factors such as type of occupation, education and experience that might influence the pay gap. In the EU as well as in this paper, data on the gender pay gap is based on the methodology of the Structure of Earnings Survey (SES) which is carried out every four years by Eurostat. This

research see into the gender pay gap in 28 EU countries based on EU - SES 2010, 2014 and 2018 Eurostat data and in more detailed way gender pay gap in the Republic of Croatia.

It seems that despite all efforts that have been put forth, the gender pay gap remains persistent. Blundell (2021) predicts that it would take another 82 years for the gap to close fully if it maintains the present rate of declining. Meanwhile, while the gender pay gap has substantially decreased since the introduction of certain policies aimed at reducing the gender differences in the labour market for full-time workers, part-time workers have not experienced substantial improvement (Anderson et al., 2001).

There has been a lot of research on the topic of the gender pay gap, but not a lot on the topic of gender pay differences between diverse economic sectors or the differences between female to male ratio in different occupations and industries. One of the rare studies tackling this issue is the study conducted by Bargain and Melly (2008) who investigated public sector workers' gender pay gap from 1990 to 2002 in France. They concluded that gender pay gap was almost non-existent in the public sector and also that women selected working in that sector more often than men. Similarly, Azam and Prakash (2010) found that female workers in the public sector earned 125% more than those in the private sector. On the other side, Hoffnar and Greene (1996) discovered that white men earned more than white women in private but also in the public sectors in African countries. Hyder and Reilly (2005) also noticed gender pay gap was smaller in the public than the private sector in Pakistan. Aderemi and Alley (2019) concluded public sector workers earned more than private sector workers. In addition, they also proved a smaller gender pay gap in the public sector. The gender pay gap differs according to some characteristics, such as region, industry, occupation, hours worked, age and earnings (Anderson et al., 2001). Anderson et al. (2001) also concluded that the gender pay gap appears to be smaller in the public than in the private sector in the UK. Due to the social issues and problems gender pay gap caused in different countries, the topic of the gender pay gap has been viewed as a concern for policy makers.

This paper contributes to our understanding of gender pay dynamics in the workplace by understanding the chronological course of the gender pay gap, and using the example of the Republic of Croatia, a more detailed analysis of the possible causes of the gender pay gap was given. This paper consists of four chapters. In the first chapter, an introductory discussion and general knowledge about the gender pay gap is given, the second chapter provides an overview of the literature on the gender pay gap so far. In the third chapter, the research conducted for the European Union and for the example of the Republic of Croatia is presented, and the results obtained are given. The fourth chapter provides concluding remarks.

LITERATURE REVIEW

The topic of the gender pay gap is very relevant for many reasons. First of all, equal pay for genders is a matter of fairness (Dey and Hill, 2007). In addition, gender pay gap very often causes lifelong financial effects that mostly result in poverty of women, while closing it would result in cutting the poverty rate of women in half (Miller and Vagins, 2018). Comparably lower pay causes higher rates of impoverishment not only for women affected, but also their families, which presents a bigger problem in single-parent households where women are the primary care givers.

Blundell (2021) defines the gender pay gap as the difference between male and female earnings, that has proven to be both persistent and universal (Lips, 2013). Several authors have depicted the course of the gender pay gap. Since it was first documented and influenced on by the policy makers, the gender pay gap has not dissapeared. However, its first slight decline was noticed in 1960s, when women progressed in education and work force participation, but men's pay also increased at a slower rate. The gender pay gap decreased rapidly in developed countries during the 1970 and 1980, owing to the legislature aimed at equalization of work opportunities to men and women, but the decline has slowed down since the mid 2000s onwards. Despite changes in women's educational development and participation in the labour market, the gender pay gap remains consistent and stagnant, i.e. the reduction in the differences between men and women regarding their education and work experience has not incited a significant reduction in the gender pay gap (Rubery, Grimshaw and Figueiredo, 2005). Different authors have dealt with identifying the determinants and factors that contributed to the persistence of the gender pay gap. Factors and determinants affecting and shaping gender position and

reward with in the labour market are quite complex. Blundell (2021) speculated gender pay gap to stem from differing tastes in jobs between men and women, discrimination, constrained opportunities, or even differences in bargaining power. Miller and Vagins (2018) found occupational segregation; caused by expectations of what typical male and female jobs should be, the motherhood penalty; i.e. parenting causing different professional outcomes for women; and also outright gender discrimination. Lips (2013) proposed that understanding of the reasons for the gender pay gap might come from describing the intersection of gender-normative societal expectations, organizational contextual factors and work-related decisions (Lips, 2013, p. 185). Kato, Kawaguchi & Owan (2013) explained the gender pay gap stemmed from the fact that women predominantly work in low-wage industries or as non-standard workers, but also the dual responsibility of women, i.e. their more burdening role in the family life than their partner's. Anderson et al. (2001) identified relevant factors that caused the gender pay gap as discrimination, human capital differences, part-time working, travel patterns and occupational and work place segregation.

At work place level in individual companies, gender pay gaps usually begin forming in the hiring procedure, when taking in to account education, work history, occupation and industry. Both experimental and organizational researchers (Belliveau, 2012, Castilla and Benard, 2010) found that male workers recieved higher incentives for the same performance as their female colleagues. Kronberg (2020) concluded that gender pay gap does not become smaller if workers stay longer with the company and gender influences the pay workers recieve both at the hiring process but also during the career as men recieve greater rewards for the same performance as their female coworkers. Dey and Hill (2007) concluded that gender pay gap begins at the graduate level, and is being persistent and even widens during career.

Aside from the topic of analyzing the gender pay gap differences, another gender pay gap topic that has not been investigated enough is the difference among countries and nations. International comparisons of gender pay differentials are rare, due to the differences of institutional factors that affect the labour market between various countries (Drolet and Mumford, 2012). Nevertheless, some authors investigated the differences in gender pay gaps among different European countries. One of those studies is the one conducted by Boll and Lagemann (2019), who found that the gender pay gap is an ever persistent pattern in European countries. The afore mentioned study was based on the Structure of Earnings Survey (EU-SES) for 2014. It was concluded that European Union's gender pay gap stood at 14.2%, but the authors found a considerable variance among individual countries, where the gap ranged from 1% in Romania to 23.5% in Estonia. It was also concluded that higher gender pay gaps existed in countries with a higher employment rate of women, and vice versa, ie. in Eastern European countries where less women choose to enter the labour market, the gap appears to belower. Authors concluded that the gender pay gap can not be analyzed without observing and understanding female participation opportunities. They also point to the need for application of four main strategies: breaking stereotypes, avoiding long family breaks, combatting part-time penalties and fostering female career advancement and leadership.

RESEARCH AND FINDINGS

According to European Commission (2013) the gender pay gap is a complex issue caused by a number of interrelated factors. It still exists today due to wider gender inequalities across the economy and in society. The European Commission singled out several important causes of gender pay gap: discrimination in the workplace, different jobs, different sectors, workplace practices and pay systems, undervaluing of women's work and skills, few women in senior and leadership positions, gender roles and traditions, balancing work and family responsibilities (European Commission, 2013).

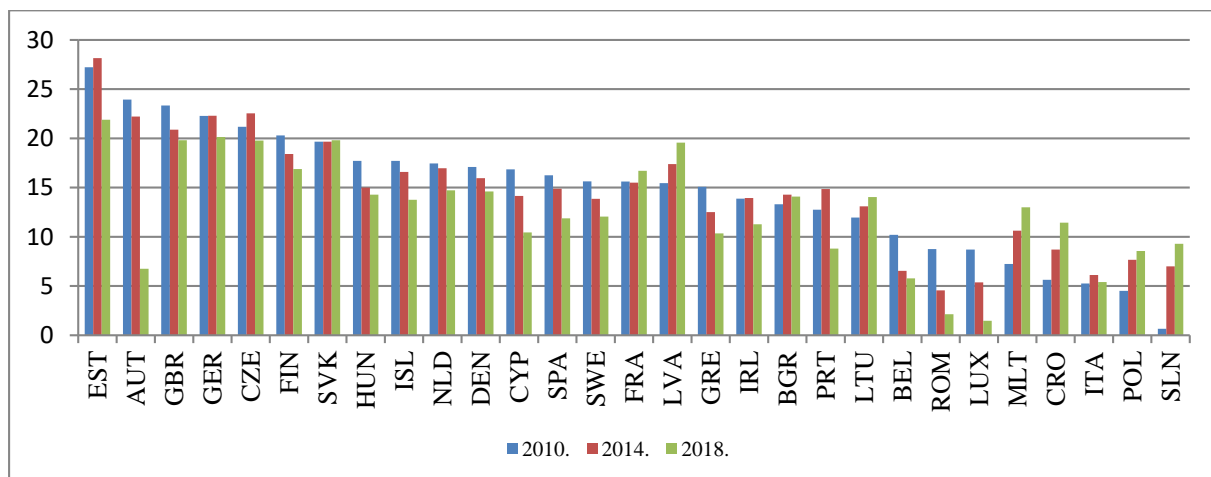
According to European Commission (2013), sometimes it happens that, although men and women do the same or very similar amount of work, they are not paid equally, which is an example of direct discrimination. Workplace practicecs and pay systems sometimes discriminate against women, so that women have a harder time reaching highly paid positions (known in the literature as the so-called glass ceiling). Women's skills and competences are often undervalued, especially in occupations where they are in the majority. This results in lower rates of pay for women. Women's skills are often undervalued because they are seen to reflect 'female' characteristics, rather than acquired skills and competences. Women are under-represented in politics and in the economy. Even in those sectors dominated by

women they are under-represented in senior positions, in particular at the top level. Gender roles and traditions shape women's and men's roles in society from a very early age. These decisions are affected by traditional values and assumptions about working patterns. Women work shorter hours and often part-time in order to combine their family responsibilities with paid work. Opportunities for women to progress in their jobs and receive higher pay are also affected by their family responsibilities (European Commission, 2013).

Through the Structure of Earnings Survey (SES), the gender pay gap was calculated for European member states based on pay data for companies with more than 10 employees. The research is conducted every 4 years, and in this paper, research from 2010, 2014 and 2018 was taken into account. Figure 1 shows the gender pay gap for selected countries for 2010, 2014 and 2018.

Compared to 2010, in most countries (16 – Austria, Great Britain, Germany, Finland, Hungary, Iceland, the Netherlands, Denmark, Cyprus, Spain, Sweden, Greece, Ireland, Belgium, Romania and Luxembourg), the gender pay gap was in 2014 and 2018 in decline and it was the lowest in Luxembourg, only 1.46%. In 2018, the highest gap remained in Estonia, although it decreased from 27.2% (2010) to 21.88%. In addition to Estonia, the gender pay gap also increased in the Czech Republic and Portugal in 2014, and decreased in 2018, compared to 2010. In the observed period, the gender pay gap in Slovakia and Italy was mostly stagnant. It has been constantly increasing in eight countries, including Croatia and Slovenia.

Figure 1. Unadjusted gender pay gap, by EU country, 2010, 2014, 2018.



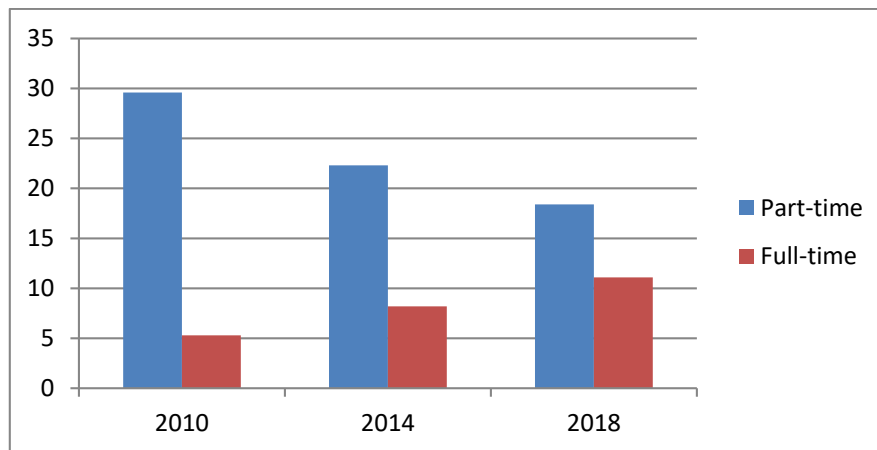
Source: authors' calculation, Structure of Earnings Survey (EU-SES), 2010, 2014, 2018.

Some countries, like Sweden, Austria and Belgium, have taken steps to close the gender pay gap through various policies, European Commission (2013). According to Figure 1, Sweden had a gender pay gap of 15.62% in 2010, which decreased to 13.86% in 2014 and 12.05% in 2018. In the observed period, the gender pay gap in Austria decreased from 23.94% in 2010, to 22.22% in 2014, and in 2018 it decreased significantly to 6.75%. Belgium reduced the gender pay gap from 10.20% in 2010, to 6.53% in 2014 and to 5.77% in 2018.

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In the observed period, compared to 2010, the gender pay gap in Croatia almost doubled, from 5.64% in 2010 to 8.69% in 2014, to reach 11.44% in 2018. According to Eurostat, shown in Figure 2, the gender pay gap in part-time employment was extremely high and decreased from 29.6% in 2010 to 18.4% in 2018, while in full-time employment increased from 5.3 to 11.1% in the same period.

Figure 2. Gender pay gap in Republic of Croatia in full time and part time

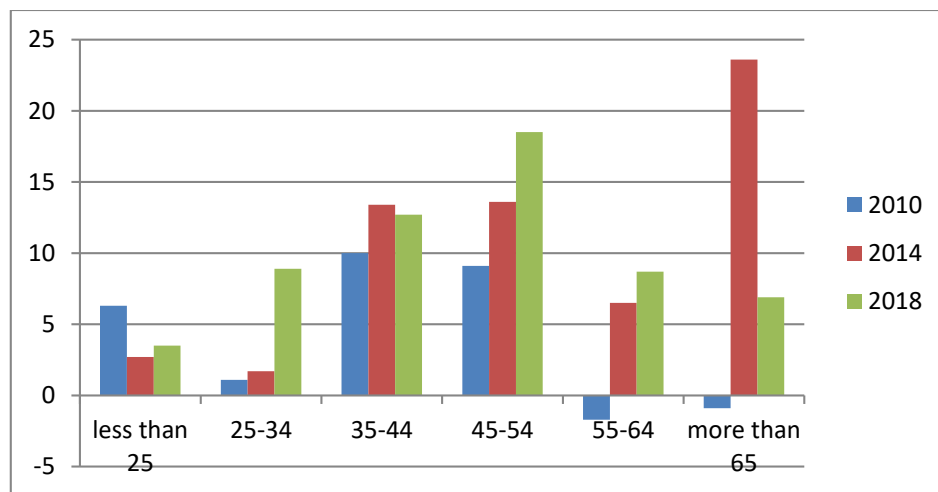


Source: authors' calculation, Structure of Earnings Survey SES 2010, SES 2014, SES 2018.

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Looking at the age of employees in the Republic of Croatia, as shown in Figure 3, it is evident that the gender pay gap in the observed period increased in all age groups of employees, except for those under 25 years of age. In that age group, it decreased from 6.3% in 2010 to 2.7% in 2014, before slightly increasing to 3.5% in 2018. A similar thing happened in the 35-44 age group, where it increased from 10% in 2010 to 13.4% in 2014, to reach 12.7% in 2018, still almost 3% more than in 2010.

Figure 3. Gender pay gap in Republic of Croatia with regard to the age of the employee

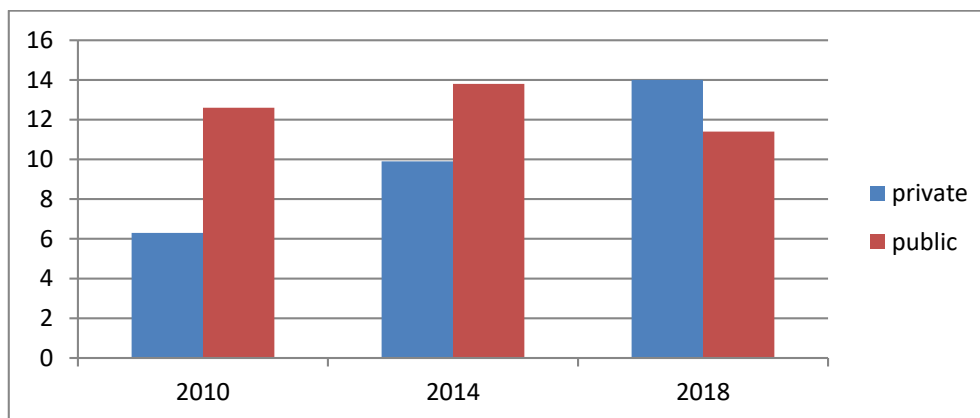


Source: authors' calculation and SES 2010, SES 2014, SES 2018.

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Looking at the ownership structure of employers shown in Figure 4, the stagnation of the gender pay gap in the public sector is visible with a slight decrease in 2018. In the same period, gender pay gap in the private sector increased from 6.3% to 9.9%, so that in 2018 amounted to a high 14%.

Figure 4. Gender pay gap in Republic of Croatia with regard to the ownership structure of the employer

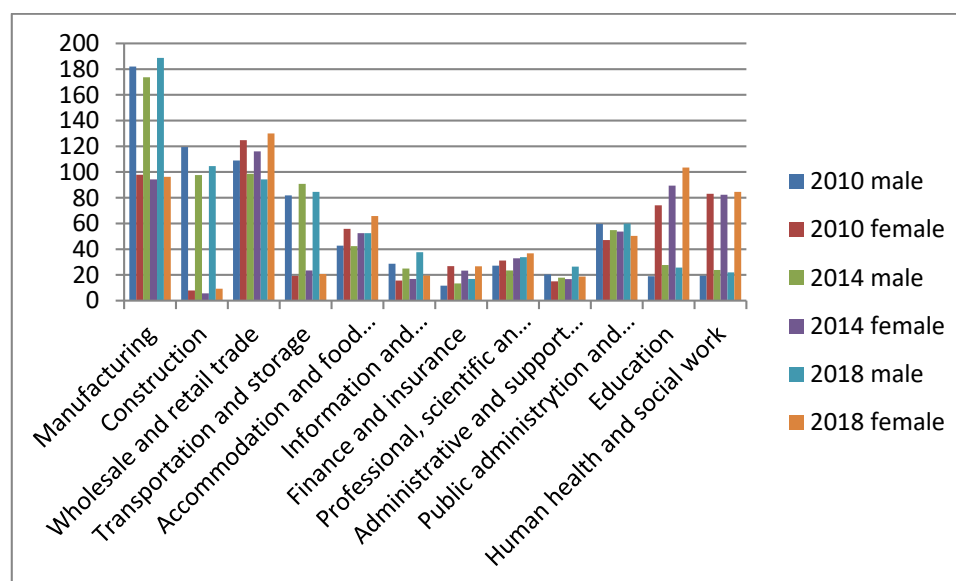


Source: authors' calculation and SES 2010, SES 2014, SES 2018.

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According to Figure 5, looking at the number and gender of employees in 2010, 2014 and 2018, in different economic sectors, it can be concluded that the gender structure by economic sector was maintained in all sectors except in education, where the number of employed women increased from 74,150 in 2010 to 89,400 in 2014, up to 103,500 in 2018. The sectoral representation of the number of employees in the total economy, in the observed period, also did not change significantly.

Figure 5. Number of employees in the Republic of Croatia by economic sector



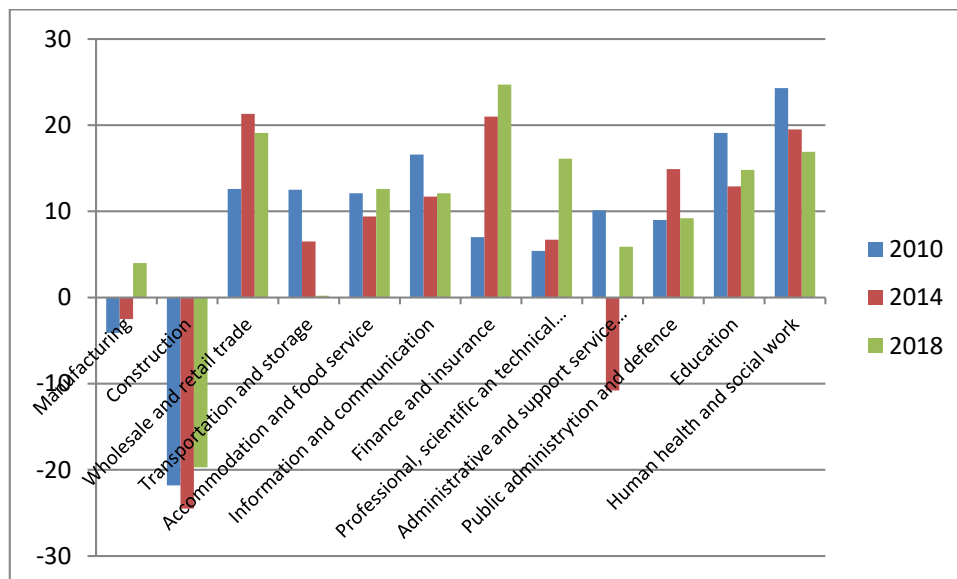
Source: authors' calculation, SES 2010, SES 2014, SES 2018,

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In the economic sectors with a large number of employees and a significant share of women (manufacturing, accommodation, public administration), gender pay gap generally increased slightly. In economic sectors with a large number of employees, in which the majority of employees are women (wholesale, education, human health), gender pay gap was relatively high in the observed period, but behaved differently. Thus, in wholesale, from the beginning of 2010, it increased from 12.6% to 21.3% in 2014, before decreasing to 19.1% in 2018. In education and healthcare, the high gender pay gap also decreased, so in education it decreased from 19.1 to 12.9 and slightly increased to 14.8%, and in healthcare it decreased from a high of 24.3% to 19.5 and to, still at a high 16.9. Other sectors employ a smaller number of women (construction, transportation) or their total employment is generally lower

(information, finance, professional, scientific, administrative), so gender pay gap and its movement do not significantly affect the overall picture.

Figure 6. Gender pay gap in the Republic of Croatia by economic sector



Source: authors' calculation and SES 2010, SES 2014, SES 2018

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CONCLUSION

This paper investigated the differences in the gender pay gap among European Union countries, but also differences within the gender pay gap in the Republic of Croatia. Conclusions and recommendations for further research can be made through the conducted research. The gender pay gap research methodology in the European Union assesses gender equality and the equality of both sexes by comparing the average gross income by gender, per hour of work. Gender equality is conditioned by the constitutional and legislative framework of each country, according to which any form of discrimination, including gender, is illegal. Gender inequality is conditioned, first of all, by the biological, traditional and cultural roles of each gender in society and the family (raising children, community living, breadwinner of the family, religious affiliation, family ties, caring for the elderly and sick, geographical immobility, etc). The share of gender pay gap based on gender inequality is illegal and can be controlled by state repressive measures, the share based on gender inequality cannot be fully controlled by public policies and will probably never be eradicated because having and raising children simply has its price. The gender pay gap proved to be persistent in all European countries, but its levels could be affected by choosing and introducing inappropriate measures and policies. The gender gap in the Republic of Croatia increased significantly in the observed period, from 5.64% in 2010 to 8.69% in 2014, to reach 11.44% in 2018. Sectorally, as in most EU countries, gender pay in the Republic of Croatia is the highest in the sectors where women make up the majority of the workforce (wholesale, education, human health). Furthermore, it increased for all age groups except for those younger than 25 years. According to the obtained results, however, the main cause of the increase of gender pay gap from 5.64% to 11.44% in Croatia is the increase of gender pay gap in the private sector from 6.3% to 9.9%, so that in 2018 amounted to a high 14%. The shown increase is somewhat alleviated by the reduction of gender pay gap in sectors of the economy with a large number of employees, in which the majority of employees are women (education, health care). In order to decrease the gender pay gap, and avoid the negative consequences it may cause, the Republic of Croatia would be advised to follow the examples of European countries that applied successful measures. Future research should further examine the causes of the gender pay gap in Croatia but also other European countries. Furthermore, in the first place, the causes of gender pay gap that arise from inequality and/or inequality between the sexes should be investigated, all so that concrete policies can be adopted to suppress this type of gap. It is also necessary to develop a methodology that could effectively monitor and compare the incidence of gender pay gap

among countries with regard to different social arrangements, legislative frameworks, traditions, and the structure of the economy. Also to conduct interdisciplinary research in order to assess the real position of women, considering the fact that 20.9% of families in the Republic of Croatia are supported by women, and where gender pay gap is only one of the indicators.

REFERENCES

- Aderemi, T. & Alley, I. (2019). Gender pay gap in the work place: the case of public and private sectors in Nigeria, *Journal of social and Economic Development*, 21, 370-391.
- Anderson, T., Forth, J., Metcalf, H., & Kirby, S. (2001). The gender pay gap. *Final Report to the Women and Equality Unit, Cabinet Office Women and Equality Unit, London*.
- Azam, M. & Prakash, N. (2010). A distributional analysis of the public-private wage differential in India. IZA discussion paper no. 5132
- Bargain, O. & Melly, B. (2008). Public sector pay gap in France: new evidence using panel data. IZA discussion paper no. 3427
- Belliveau, M.A. (2012). Engendering inequality? How social accounts create vs. merely explain unfavourable pay outcomes for women. *Organization Science*, 23(4), 1154-1174.
- Blundell, J. (2021). Wage responses to gender pay gap reporting requirements. *Available at SSRN 3584259. Intereconomics*, 54, 101-105.
- Boll, C., & Lagemann, A. (2019). The gender pay gap in EU countries—new evidence based on EU-SES 2014 data.
- Castilla, E.J. & Benard, S. (2010). The paradox of meritocracy in organizations. *Administrative Science Quarterly*, 55, 543-576.
- Dey, J. G., & Hill, C. (2007). *Behind the pay gap*. American Association of University Women Educational Foundation. 1111 Sixteenth Street NW, Washington, DC 20036.
- Drolet, M., & Mumford, K. (2012). The gender pay gap for private-sector employees in Canada and Britain. *British Journal of Industrial Relations*, 50(3), 529-553.
- European Commission - Directorate-General for Justice (2013). Tackling the gender pay gap in the European Union Luxembourg: Publications Office of the European Union, ISBN: 978-92-79-29690-1 doi: 10.2838/22962
- Hoffnar, E., & Greene, M. (1996). Gender discrimination in the public and private sectors: A sample selectivity approach. *The Journal of Socio-Economics*, 25(1), 105-114.
- Hyder, A., & Reilly, B. (2005). The public and private sector pay gap in Pakistan: A quantile regression analysis. *The Pakistan Development Review*, 271-306.
- Kato, T., Kawaguchi, D. & Owan, H. (2013). *Dynamics of the Gender Gap in the Work place: An econometric case study of a large Japanese firm (Revised)*. RIETI Discussion Paper Series 13-E-038.
- Kronberg, A. K. (2020). Work place gender pay gaps: Does gender matter less the longer employees stay?. *Work and Occupations*, 47(1), 3-43.
- Lips, H. M. (2013). The gender pay gap: Challenging the rationalizations. Perceived equity, discrimination, and the limits of human capital models. *Sex Roles*, 68, 169-185.
- Miller, K., & Vagins, D. J. (2018). The simple truth about the gender pay gap. *American Association of University Women*.
- Rubery, J., Grimshaw, D. & Figueiredo, H. (2005). How to close the gender pay gap in Europe: towards the gender mainstreaming of pay policy. *Industrial Relations Journal*, 36(3), 184-213.
- Structure of Earnings Survey EU-SES (2010).

https://ec.europa.eu/eurostat/databrowser/view/earn_ses10_14/default/table?lang=en
February 20th 2023]

[Accessed

Structure of Earnings Survey EU-SES (2014).

https://ec.europa.eu/eurostat/databrowser/view/earn_ses14_14/default/table?lang=en
February 20th 2023]

[Accessed

Structure of Earnings Survey EU-SES (2018).

https://ec.europa.eu/eurostat/databrowser/view/earn_ses18_14/default/table?lang=en

[Accessed February 20th 2023]

https://ec.europa.eu/eurostat/databrowser/view/lfsi_emp_a/default/table?lang=en

[Accessed February 20th 2023]

https://ec.europa.eu/eurostat/databrowser/view/earn_gr_gpgr2/default/table?lang=en

[Accessed February 20th 2023]

https://ec.europa.eu/eurostat/databrowser/view/earn_gr_gpgr2ag/default/table?lang=en

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https://ec.europa.eu/eurostat/databrowser/view/earn_gr_gpgr2ct/default/table?lang=en

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