

## THE DIFFERENTIATION OF GENDER WAGE IN THE BALTIC STATES

**Violeta Šilingienė<sup>1</sup>, Gintautas Radvila<sup>2</sup>**

<sup>1</sup> Prof. dr. Kaunas University of Technology. Address: K. Donelaičio g. 73, 44029, Kaunas, Lithuania. Phone +370 37 300570. E-mail violeta.silingiene@ktu.lt

<sup>2</sup> PhD. Kaunas University of Technology. E-mail gintautas.radvila@ktu.lt

*Received 13 08 2016; accepted 13 09 2016*

The problem of gender wage differentiation was evaluated as one of the most important in a countries' legal-political, economic and social life. The purpose of this article is to examine the external determinants that effects gender wage differentiation in the Baltic States. This article research methodology is based on the study and analysis of European Union legislation to define gender equality aspects in the labor market that enables equal payment for men's and women's work and the statistical analysis of Eurostat, Lithuanian, Latvian and Estonian Statistics departments' data to determine the gender pay gap in the Baltic States. After the research authors identified a wide variety of external (legal-political, economic and social) determinants that affect gender wage differentiation. This confirmed that gender wage differentiation in all three Baltic States is highly affected by external determinants.

*Keywords: wage, wage differentiation, gender wage differentiation, gender pay gap.*

*JEL Codes: J30, M12.*

### **1. Introduction**

Nowadays, the global business environment causes not only business transnationalization, but also covers macro-economic, political, legal and social processes. Qualitative changes are taking place in society's life style, influencing the gender status in the family and the labor market. These processes are complicated because of long-time traditions and inflexible provisions, which lead to problems in various areas of life. Therefore, in recent decades, the reduction of discrimination on an age and gender basis, as well as equal rights of women and minorities in business, has become a critical issue. Especially as it strongly affects equal opportunities of females and males in the labor market, emphasizing gender wage differentiation (Cohen, 2007; Žiogelytė, 2012). From the perspective of global business positions, the solution to this problem has become one of the key issues when it comes to the principles of social responsibility, based on the development of enterprise and sustainable economic growth.

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Looking from the perspective of a research position, wage and the creation of different wage systems has become a top subject of interdisciplinary research, analyzed from the economic, legal, managerial and psychological positions. Wage is very widely treated as an economical category but in general it is identified as labor value. In monetary terms it is the cost of labor, which consequently ensures the restoration of labor (Rudytė, 2008; Tamašauskienė, 2008; Žiogelytė, 2010). Along with the economic purposes, wages can often be found as a social purposes, which allows researchers to analyze wage as a social-economic category (Mačernytė-Panomariovienė, 2008). In legal terms, wage is being defined as reward for performed job functions stipulated in a labor contract (Rudytė, 2008; Žiogelytė, 2010). The wage, as one of the main self-motivating factors for individual performance and is therefore being analyzed in terms of management and psychology (Balvočiūtė, 2008).

Considering wage differentiation, the researchers focus on its' determinants (Ilayperuma, 2004; Rudytė, 2008; Žiogelytė, 2010). However, it should be stressed that wage differentiation determinants influence gender research aspects and receive less attention (Koeniger, 2007; Žiogelytė, 2012). In scientific debates on gender wage differences, the focus is more likely to be on general economic and legal equality differences between genders in the labor market. In terms of global wage management, crucial attention is paid to the strict European Union legislation mechanism for equal opportunities of males and females in the labor market. However, in practical terms it shows that constructive legislation alone is not sufficient, because there are many factors in organizations affecting steady gender wage differentiation in the labor market. The internal determinants of an organization's wage differentiation are generally associated with quantity and qualitative analysis of the work, the exact employment and the employee's value; as well as the internal ability to pay the appropriate amount of wage. The variety of external determinants is much larger. W. Koeniger et al. (2007) distinguishes external determinants as strict employment policy, benefits from unemployment insurance, technological development and the minimum wage. L. Žiogelytė (2012) states that the labor market situation in a country or region and in the relevant kind of economic activity is one of the most important external environmental or market factors that highly influence wage systems. Other authors explain gender wage differences as, identify different gender distribution of employees in various kinds of economic activities, diverse gender employment opportunities, part-time employment count (Alaez-Aller, 2011; Asplund, 2011) and stereotypes formed over a long period of time that prevent a females' integration into the labor market (Petersen, 2010; Startienė, 2008). It is important that the effect of external determinants on reducing gender wage differentiation is considered as a long-term process, where certain measured results can only be assessed after several years. In this context, global practice of wage management becomes crucial in analyzing gender wage differentiation trends in the global business environment. Such research results would allow the opportunity to rely on diverse experiences when choosing appropriate gender wage differentiation mitigation measures on both a national and organizational level.

**The scientific problem of the article** – what kind of external determinants have a significant influence on the gender pay gap?

**The purpose of this article** – to identify the external determinants that effect gender wage differentiation in the Baltic States.

**Subject of the article** - gender wage differentiation in the Baltic States.

**Methods of the research:** the systematic analysis of scientific literature to determine the theoretical gender pay gap determinants and find joint dimensions for the Baltic States as a single global business environment; the study and analysis of European Union legislation to define gender equality aspects in the labor market that enables equal payment for men's and women's work; the statistical analysis of Eurostat, Lithuanian, Latvian and Estonian Statistics departments' data to determine the gender pay gap in the Baltic States.

For the analysis of the gender pay gap of the three Baltic countries, the period from 2008 up to 2014 was selected. In order to evaluate and compare the pay gap by the identified determinants, the calculation of average values were applied. The analysis of men and women's wages in terms of retrospective, the dynamics of lines were applied, where it justified a variation of the pay gap over time. For the study of male and female wage differences among different kinds of economic activities, a clustering method was applied. In order to evaluate the results of the gender pay gap, a new measuring scale was created: up to 10 percent difference – low; 10 to 20 percent – average; more than 20 per cent – high.

The empirical research did identify a number of limitations due to the fact that it was not possibility to fully analyze all the determinants distinguished by the three Baltic countries. The main issues regarding this were the differences in the provision of data, classification and methodology submitted by the various Departments of Statistics in relation to the research object.

Methodological empirical research of the gender pay gap in the Baltic States is based on the analysis of scientific literature and synthesis techniques that distinguish external wage differentiation determinants (Table 1). This created classification of external wage determinants is a general type and is not related to a specific field of activity, sector or exact occupation.

However, considering the research object in the article and recognizing that there is a discriminatory wage differentiation is highly relevant to specific external determinants, which is characterized by wage differences among genders. Therefore, not all external wage differentiation determinants for analysis were excluded.

With the help of legal-political determinants, the government sets procedures for the payment of wages and the minimum wage rates, which seeks to protect the interests of employees. Legal acts are intended to reduce the potential for discrimination in the labor market by different aspects, including gender equality. Historically, a very important role regarding wage differentiation has been recognised by the influence of unions. Through collective labor contracts, employers are required to negotiate with the unions on wages, such as hourly rates and other regulations of payments (Pollan, 2008).

Table 1. Classification of external determinants that affects differentiation in remuneration

External factors groups	Determinant	Authors	Factors important in the context of gender
Legal-Political	Government Policy	Dolton, 2010, Gerikienė, 2003, Rudytė, 2008, Žiogelytė, 2012	European Union Legislation
	Legislation		
	Trade union		
Economic	Conditions in the labor market	Asplund, 2011, Hoxna, 2010, Masso, 2011, Rudytė, 2008), Žiogelytė, 2012	Wage rates, wage differences between different economic activities and sectors
	Level of wage rate		
	Living standard		
Social	Professional distribution	Alaez-Aller, 2011), Daukantienė, 2006, Valackienė, 2007), Žiogelytė, 2012.	Vocational and structural distribution of men and women and employment
	Education and age		
	The number of employees within a particular economic activity		

Focusing on gender wage differentiation specifics, the article analyzes only those legal acts that govern the rights of the gender wage in the context of the European Union and the Baltic States.

Economic determinants of wage differentiation are commonly associated with labor market conditions, wages and standards of living. Conditions in the labor market reflect the ratio dictated by supply and demand, where changes directly influence labor costs. Research has shown that one of the key indicators reflecting labor market conditions - unemployment - does not guarantee a high level of wage. A study of the Baltic States labor market disclosed that during the economic recession (2008–2009), unemployment in the Baltic States had risen significantly, which was also coupled with a wage reduction depending on the type of business sector (Masso, 2011). In different sectors of a country's economy (economic kind of activities, sectors, enterprises), existing wage differentiation depends on an individual business profitability and productivity (Asplund, 2011; Žiogelytė, 2012). A wage differentiation also exists in the public as well as in private sectors. The indicators of wage level, the gender pay gap in the different kinds of economic activities and sectors are therefore analyzed in this article. The analysis was undertaken because of the problem of gender wage differentiation aspects due to economic factors.

Social determinants include such characteristics as education, qualifications, occupation and experience. Research of the Baltic States labor market disclosed that during the economic recession in the Baltic States the pay gap among higher and lower wage employees increased from 51 percent to 67 percent (Masso, 2011). There are also considerable differences between skilled and unskilled labor. Studies have shown that the gender wage gap can be attributed not only to the distribution of employees in different kinds of economic activities, but also with the different employment opportunities for men and women, and the quantity of part-time employees (Alaez-Aller, 2011). Women are more likely than men to work part-time, by fixed-term employment contracts, and this increases the gender pay gap. In order to substantiate gender wage differentiation in

the Baltic States, the authors analysed the distribution of men and women by occupation, full or part-time work and employment indicators.

## 2. Results and discussions

**The variation of the Baltics gender pay gap in the context of the European Union.** It should be stressed that the problem given in this article is not only a Baltics issue, but also across the European Union area of interest. The research analysed the gender pay gap and its variation based on the period from 2008 till 2013. The results of survey disclosed that not only the Baltic countries, but the whole European Union do not properly addresses the issues regarding equal pay. During the assessment of the gender pay gap values, it was revealed that both in the European Union (27) and the Baltics wage gap levels are high.

The analysis of Eurostat data for the years 2008–2013 (Table 2) disclosed a noticeable gender pay gap in the European Union and also in the Baltic countries.

Table 2. Gender pay gap variation in the European Union (Austria high, Slovenia low), and the Baltic countries (Estonia, Latvia, Lithuania) (%)

Country/Years	2008	2009	2010	2011	2012	2013	Difference (2008–2013)
European Union (27 countries)	17.3	17.2	16.2	16.3	16.4	16.4	–0.9
Austria	25.1	24.3	24	23.7	23.4	23.0	–2.1
Slovenia	4.1	–0.9	0.9	2.3	2.5	3.2	–0.9
Baltic countries	20.3	18.3	19.3	17.6	18.8	19.2	–1.1
Estonia	27.6	26.6	27.7	27.3	30	29.9	+2.3
Latvia	11.8	13.1	15.5	13.6	13.8	14.4	+2.6
Lithuania	21.6	15.3	14.6	11.9	12.6	13.3	–8.3

Source: adapted by on the basis of Eurostat (2015) data

It should be stated that the difference varies between the countries of the European Union, including the Baltics. According to the latest available data, on average, a women in the European Union in 2013 earned 16.4 percent less than a man. In Slovenia, Malta, Poland, Italy, Luxembourg and Romania, this gender pay gap is less than 10 percent, while in Hungary, Slovakia, the Czech Republic, Germany, Austria and Estonia – more than 20 percent. The unique situation of gender wage differentiation in relation to the European Union is in Slovenia. The gap in this country between the wages of men and women in 2013 was only 3.2 percent, which was the lowest value of this indicator throughout the European Union. It should also be noted that in accordance to the Eurostat data, Slovenia was the only country in the whole European Union that had a negative result of gender pay gap, which stood at –0.9 percent in 2009. This means that women in 2009 earned more compared to men. Meanwhile in Estonia and Austria this indicator is very high, reaching 29.9 and 23 percent respectively. Such a large range of wages in the European Union shows that in order to reduce the gender pay gap it is very important to combine measures both throughout the European Union and on a national levels.

The analysis of the Eurostat data disclosed the characteristic gender wage differences in the Baltic countries, where in 2013 the gender pay gap was 19.2 percent. The analyzed data shows a slight falling behind of the European Union average. To be precise, the gap between the wages of men and women in Latvia and Lithuania are similar or below the average of the European Union. However, the indicator for Estonia is significantly higher and is above the average of the European Union. Looking from the perspective of dynamics, since 2008 the gap in the European Union has been stable, with a slight trend to decline, however in the Baltic countries there is a very different situation. Since 2008, the gap in Latvia has always been lower compared to the European Union average and has remained relatively stable. In 2008, the gap in Lithuania was greater than the average of the European Union, but since 2009 a very significant and stable reduction of the gap can be observed and since 2011, the Lithuanian gender pay gap value has reduced to 13.3 percent by 2013, which is the ninth ranked result in the European Union (although since 2012 a small pay gap growth in Lithuania and Latvia had been noticed). In accordance to the data of the Department of Statistics of the Republic of Lithuania, during the analyzed time period from 2008 till 2012, the Lithuanian private sector had the largest gender pay gap in the country, which in 2008 was almost 24 percent, however by 2012 this gradually declined. Meanwhile, in Estonia since 2008 this indicator remained stable but higher than the gap of the other Baltic countries as well as the European Union.

As already mentioned, the reduction of men's and women's wage differentiation is a long-term process, and the results of certain measures can only be evaluated after a number of years. In order to assess the effectiveness of these measures on continental and national levels, the variation of male and female wage gaps that had been illustrated by the differentiation of gender pay gap in the years from 2008 till 2013 were analyzed. In the European Union this indicator fell by 0.9 percent, which indicates that the problem is being solved, but the solutions are at a very slow pace. In the Baltics, this indicator fell by 1.1 percent. This situation leads to the assumption that the pace of the problem solvation in the region are similar to the European Union's, as there are no major deviations. However, it should be noted that the values of these indicators in all three Baltic countries deviated. In Lithuania, the gender pay gap decreased by as much as 8.3 percent. However, it must be stated that out of all the Baltic countries, only Lithuania made a particularly significant progression regarding the solvation of the problem. Conversely, in Estonia and Latvia the gender pay gap had grown by 2.3 and 2.6 percent respectively.

**The analysis of the legal and political environment of the Baltic States.** Based on the systematic analysis of scientific literature, critical determinants that determine wage differentiation in the Baltic States as a single global business environment had been identified. The choice to analyze gender wage differentiation trends in the Baltic States is based on similar countries characteristics that can be attributed to external determinants influencing wages. First of all, the history and the same geopolitical situation of the three Baltic States are similar in many aspects. Located in the North of Europe around the Baltic Sea area; Estonia, Latvia and Lithuania are perceived as individual, Nordic unique, different to the countries located in Central Europe and in the context of the European Union, particularly favorable for the internal integration of the region. In the geopolitical point of view, the three Baltic States – Estonia, Latvia and Lithuania –

are an integral part of Western Europe. Secondly, the economic situation in the Baltic States is similar. According to the Eurostat data of 19 February, 2015, Estonia, Latvia and Lithuania are attributed to the same zone in accordance with the minimum monthly salary – up to 500 EUR. Thirdly, the current European Union legislation and its synchronization with national legislation ensure the equality for males and females. In 1957, the treaty of Rome committed to closing the gender pay gap. The European Social Charter emphasizes each employee’s rights to a fair wages. The treaty of the European Community obligated country members to ensure that both gender employees should be paid an equal wage for the work of equal value. The European Union economic growth strategy, (Europe 2020) has as a key determinant to close the gender pay gap and identified the gender equality and better usage of women’s talents and abilities. Table 3 describes the key decisions in recent years regarding this issue in the global context of the European Union.

Table 3. European Union legislation, that regulates the equal gender pay principles

European Union legislation	Equal gender pay principles
Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions-Tackling the pay gap between women and men (2007)	<p>A variety of actions dedicated to solve the gender pay gap problems was offered:</p> <ul style="list-style-type: none"> <li>• better application of existing legislation</li> <li>• solving gender pay gap issues by developing an employment policy</li> <li>• inspiring employers to ensure the equal remuneration of their employees</li> <li>• developing of social partnership</li> <li>• demonstrating best practices in the EU</li> </ul>
Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions-Strategy for equality between women and men 2010–2015	<p>Provided actions in four areas:</p> <ul style="list-style-type: none"> <li>• economic and labor market</li> <li>• equal pay of men and women in higher positions</li> <li>• the fight against gender-based violence</li> <li>• the promotion of equality outside the EU borders</li> </ul>
European Commission recommendation on strengthening the principle of equal pay between men and women through Transparency (2014)	<p>Principles of equal pay for adequate work that are enshrined in the Treaty of 1957 integrated into the new version of Directive 2006/54/EC:</p> <ul style="list-style-type: none"> <li>• the assessment of regulation regarding practical application of the principle of equal pay</li> <li>• the analysis of best practices of the EU Court of Justice in the field of equal pay</li> <li>• the dissemination of examples of job classification systems and national actions</li> <li>• the promotion of transparency of pay</li> </ul>
European Commission project „Equality Pays Off (EPO)“ (2010–2015)	<p>The project executed by the European Commission supporting employers, who are trying to reduce the pay gap, and helping companies to understand gender equality and equal pay benefits for business:</p> <ul style="list-style-type: none"> <li>• 39 events had been executed (34 national workshops in 34 countries, 4 exercises with themes of equal pay and Business Forum)</li> <li>• development of additional material (training manuals, handbooks of good practices, material for information)</li> </ul>

The application of a joint European Union strategy document regarding the reduction of the gender pay gap in legal acts, normative and other provisions on a constructive basis for their application at a national level. However, the analysis of the legal-political environment and statistics on women and the gender pay gap variation in the Baltic States has shown that there are not enough of these actions. It is noted that even with coherent legislation, the realization of provisions in practice is still problematic. This could be clearly shown by the gender wage differentiation by sectors (private and public) among different European Union countries. Table 4 presents the variation of gender pay gap between the public and private sectors in Lithuania.

Table 4. The variation of gender pay gap in Lithuania (%)

Sector / Years	2008	2009	2010	2011	2012	2013
Public sector	17.3	13.1	14.2	12.1	13.3	13.3
Private sector with individual enterprise	23.5	20.5	18.8	16.0	16.1	15.8
The country's economy with individual companies	21.6	15.3	14.6	11.9	12.6	13.3

Source: adapted by the authors on the basis of Lithuanian Statistics department (2015)

According to the data, there is a very clear trend that the gender pay gap in the public sector is smaller compared to the private sector. This is caused by several reasons. Primarily there are differences of the sectors' operational conditions and legal regulations. In the public sector, unlike the private, the transparency and information about working conditions and pay rates are generally publically available. The wage of the public sector and its amount is legally and strictly regulated. In this case, the state management mechanism is adjusted so that the discriminatory elements with regard to pay are substantially limited, while having any disagreement on this issue is therefore easier to carry out an investigation. Consequently, the gender pay gap in the public sector is much smaller. This pattern is valid in most European Union countries.

Meanwhile, in the private sector pay is less legally regulated than the public sector. It is also necessary to highlight that the employers of private sector companies are constantly evaluating the potential labor risks, such as the employee's age, ability to work, health and others. Women indirectly have an increased risk, especially for their health and absence to have children that causes some additional problems for the employer in finding of replacement, who also need to be properly trained and significantly increases the labor costs of the company. Therefore, the employer regulates the level of wages in order to insure their potential labor costs. It is also necessary to distinguish a lack of transparency regarding wages in the private sector. Unlike the public sector, the private sector is not obliged to specify a wage system. The law regulates only a small part of the wage, which is the level of the minimum wage and the remaining part of the wage depends on a bilateral employer-employee agreement - a contract of employment. A labor contract defines an exact wage, but does not disclose the pay system, therefore it allows the possibility for misuse. Therefore, it may be seen that a person who has the equal classification and experience, conducting the same occupation and the same activity are being paid differently. Such an example in the public sector would not be legally possible and such discrimination in terms of gender could be a handy tool for the private sec-



tor employer to reduce their labor risks. In these cases, the reasons for the gender pay gap exist.

In summary, it can be observed that the gender pay gap in the Baltic countries is being influenced by the common factors attributed to the global environment, where in all countries men earn more compared to women. On the other hand, the data only confirms the fact that despite the joint efforts of the European Union to reduce the level of the gender pay gap, the solvation of this problem is more likely to be solved at the national level. Therefore, in order to identify the determinants of the gender pay gap in the Baltic States, a deeper analysis was performed.

**The analysis of economic determinants that affect wage differentiation.** In this group of external determinants, the connection between the differentiation of gender wage and the level of wage in the Baltic States was analyzed.

In order to determine if there are significant differences in the level of wages in the Baltic countries, the dynamics of the gap between the minimum and average wage in 2008–2013 were analyzed (Table 5).

Table 5. The variation of monthly minimum and average wages in Estonia, Latvia and Lithuania

Country	Indicator/Years	2008	2009	2010	2011	2012	2013
Estonia	Monthly minimum wages, EUR	278.02	278.02	278.02	278.02	290	320
	Average gross monthly wages, EUR	825.2	783.8	792.3	839.0	887.0	949.0
	Ratio	2.97	2.82	2.85	3.02	3.06	2.97
Latvia	Monthly minimum wages, EUR	228.4	254.98	253.77	281.97	286.5	285.7
	Average gross monthly wages, EUR	–	–	633.0	660.0	685.0	716.0
	Ratio	–	–	2.49	2.34	2.39	2.51
Lithuania	Monthly minimum wages, EUR	231.7	231.7	231.7	231.7	231.7	289.62
	Average gross monthly wages, EUR	623.2	595.5	575.8	592.5	615.1	646.3
	Ratio	2.70	2.57	2.49	2.56	2.59	2.23

During the analysis of the minimum and average wage in the Baltic countries, the characteristic results have been disclosed. It clearly stands out that the level of the minimum and average wage is highest in Estonia, as well as the largest gap between them. In 2013, this ratio in Estonia was 2.97, while in Lithuania and Latvia the ratios of 2.23 and 2.51 are observed. A similar tendency had been dominate over the period of time from 2008 up to 2013. All this data allows an assumption to be made that the gap between the minimum and average wages could have a direct impact on the gender pay gap. The ten-

gency discloses that relatively more women compared to men are employed in lower-paid jobs and countries where differentiation of the studied wage is higher, so to the gender pay gap is also higher.

Based on the theoretical provision, one of the most important factors influencing the gender wage differentiation is the number of employees separated by different gender and working in different kinds of economic activities. In order to prove this provision on the Baltic countries a comparative analysis of gender pay gap by economic kind of activity was conducted (Table 6).

Table 6. Gender pay gap by economic kind of activity in Baltics (%)

Economic kind of activity	Country	Years			Absolute differentiation
		2011	2012	2013	
A. Agriculture, Forestry and Fishing	Lithuania	–	–	–	–
	Latvia	15.64	15.07	18.50	2.86
	Estonia	14.66	6.99	12.70	–1.95
B. Mining and quarrying	Lithuania	2.40	3.60	5.60	3.20
	Latvia	17.55	17.70	26.05	8.50
	Estonia	32.29	33.93	33.75	1.46
C. Manufacturing	Lithuania	26.90	26.60	25.70	–1.20
	Latvia	20.28	22.16	23.50	3.22
	Estonia	29.76	30.957	31.45	1.69
E. Water supply, sewerage, waste management and remediation activities	Lithuania	12.30	12.30	11.70	–0.60
	Latvia	13.42	9.38	13.04	–0.38
	Estonia	11.80	8.17	13.61	1.81
F. Construction	Lithuania	0.40	–1.30	–2.20	–2.60
	Latvia	–1.34	–1.79	6.53	7.87
	Estonia	17.23	22.03	21.31	4.08
G. Wholesale and retail trade; repair of motor vehicles and motorcycles	Lithuania	19.30	20.20	22.30	3,00
	Latvia	24.76	26.92	24.03	–0.73
	Estonia	31.76	33.79	32.95	1.19
H. Transportation and storage	Lithuania	–2.40	–4.00	–5.80	–3.40
	Latvia	9.77	11.67	14.71	4.94
	Estonia	5.57	2.42	–0.20	–5.77
J. Information and communication	Lithuania	25.70	26.40	27.80	2.10
	Latvia	23.25	20.61	30.12	6.87
	Estonia	27.54	29.82	30.07	2.53
K. Financial and insurance activities	Lithuania	40.80	40.00	39.90	–0.90
	Latvia	37.31	39.28	36.98	–0.33
	Estonia	37.48	43.34	41.81	4.33
L. Real estate activities	Lithuania	14.70	13.00	12.80	–1.90
	Latvia	12.46	7.52	6.37	–6.09
	Estonia	22.85	15.67	10.54	–12.31
M. Professional, scientific and technical activities	Lithuania	15.30	14.60	19.80	4.50
	Latvia	10.55	12.25	–0.72	–11.27
	Estonia	18.26	17.47	21.42	3.16
N. Administrative and support service activities	Lithuania	9.50	9.90	8.80	–0.70
	Latvia	6.41	0.49	–0.83	–7.24
	Estonia	8.98	16.74	18.37	9.39
O. Public administration and	Lithuania	6.20	4.50	3.60	–2.60

Economic kind of activity	Country	Years			Absolute differentiation
		2011	2012	2013	
defence; compulsory social security	Latvia	-3.65	-3.81	-0.24	3.41
	Estonia	10.24	9.76	12.11	1.87
P. Education	Lithuania	-1.80	-0.70	-0.30	1.50
	Latvia	19.49	14.24	22.52	3.03
	Estonia	24.73	25.38	26.44	1.71
	Lithuania	23.10	25.30	20.90	-2.20
S. Other service activities	Latvia	25.08	27.91	9.74	-15.34
	Estonia	23.41	12.537	27.41	4,00
Total	Lithuania	11.60	12.00	12.50	0.90
	Latvia	16.50	16.76	16.91	0.41
	Estonia	22.89	24.648	24.80	1.91

Source: adapted by on the basis of Lithuanian, Latvian and Estonian Statistics departments (2015)

Researchers decided to do a comparative analysis of wages in these kinds of economic activities where the gender pay gap in the Baltic countries have common trends and major differences. To achieve this goal, the clustering research method was used and Baltic countries were separated into three clusters by the level of gender pay gap (Table 7).

Table 7. Grouping of kind of activities in Baltics by assessment of gender pay gap (2013)

Country	Clusters of kind of activities by the level of pay gap		
	Low (I)	Medium (II)	High (III)
Estonia	H	AELO	BCFGJKMNPS
Latvia	FLMNOS	AEH	BCGJKP
Lithuania	BFHNOP	ELM	CGJKS

The clustering of the kind of activities in the Baltic States allowed the distinguishing joint features that identify the specifics of the region, as well as the substantial differences within the region. All three countries disclosed a common tendency that the largest gender pay gap is in the same kind of economic activities. Based on the analysis of statistical data, 4 kinds of economic activities were identified to have the largest gender pay gap among others. These are:

- C. Manufacturing;
- G. Wholesale and retail trade; repair of motor vehicles and motorcycles;
- J. Information and communication;
- K. Financial and insurance activities.

Even in these four kinds of economic activities, the group gender pay gap has the highest rate, which makes a huge impact on the overall level of Baltic region wage differentiation by gender. It should be noted that the financial and insurance activities is clearly the most problematic kind of economic activity. For the period of time from 2011 up to 2013 it had the largest gender pay gap in all three Baltic States.

During the studied period, in addition to general trends, it is needed to mention the specifics at a national level, where the top three kinds of economic activities with the highest gender pay gaps were identified. In Estonia the prevailing economic activities

with the highest level of gender pay gap were mining and quarrying, wholesale and retail trade, and repair of motor vehicles and motorcycles. In Lithuania, in addition to the financial and insurance activities, it manufacturing with information and communication were identified. Meanwhile, in Latvia's case there is no identifiable unambiguous dominance of activities except financial and insurance activities, although this Baltic country has several kinds economic activities which have high levels of gender pay gap, but there is no stable long-term dominance.

The analysis of the lowest deviations of wage by gender revealed that there are no common trends in the Baltic countries. Although in some cases the same trends in individual kinds of economic activities overlap, but haven't revealed a basis for any insights regarding the tendencies in all three Baltic States. Therefore, the analysis of the lowest gender pay gap was performed on a national level. There were three kinds of economic activities which dominated in Lithuania during the period of analysis. These three activities had a negative level of gender pay gap, which indicates that women earned more in comparison to men. These kinds of economic activities are:

- F. Construction;
- H. Transportation and storage;
- P. Education.

It must be emphasized that in this case, none of the activities mention above had greater than 10 percent deviation. This means that the gender pay gap is at a low level.

Similar to this, in Latvia these economic kinds of activities were distinguished:

- F. Construction;
- N. Administrative and support service activities;
- O. Public administration and defence; compulsory social security.

These kinds of economic activities in Latvia also had no deviation greater than 10 percent, which allows them to be assigned to a low level category.

The Estonian case is characteristically different from the other two Baltic States, because there is only one kind of economic activity that has a low gender pay gap, which is transportation and storage. The situation in the other kinds of economic activities is constantly changing. It should stressed that in Estonia, three areas with the lowest gender pay gap fall not only in the low level category but also into the category of the medium gender pay gap level, which shows that the dimension of this problem in Estonia is significantly higher than in Lithuania or Latvia.

According to the clusters grouped by kind of economic activities (Table 7), another important finding is the gender pay gap in Latvia and Lithuania are similar and below the European Union average, meanwhile in Estonia it is significantly higher and above the average of European Union. Therefore, there is a very clear correlation with the cluster of kinds of economic activities in all three Baltic countries. While the gender pay gaps in Lithuania and Latvia with the smallest variations are identified in the middle categories and an even number in both the lower and higher categories, Estonia's largest group is identified as being in the highest category. Summarizing the current situation in the Baltic countries, it should be mentioned that there are dominating kinds of economic activities where the gender pay gap is much high and this could identified as the overall trend (Table 7). This only confirms the theoretical insights that there is a sustainable dis-

tribution of employees in different kinds of economic activities and the labor market. Therefore, in order to analyze the problem of this research it is also necessary to evaluate the social determinants that influence the gender pay gap.

The analysis of social determinants that affects wage differentiation. In the group of social determinants two main indicators were analyzed:

- distribution of employees by occupation;
- distribution of employees in the European Union and the Baltic States by full and part-time work.

In order to confirm the assumption that inequality of wage is being influenced by the distribution of occupation by gender, an analysis of the dispersion of males and females by occupation in the three Baltic countries was undertaken (Table 8).

Table 8. The dispersion of males and females by occupation (2014)

Occupation/Country	Lithuania			Latvia			Estonia		
	Males, thsd.	Females, thsd.	The relative proportion of women	Males, thsd.	Females, thsd.	The relative proportion of women	Males, thsd.	Females, thsd.	The relative proportion of women
Total	556	603	0.5202	439	446	0.5044	320	304.8	0.4878
Managers	59.2	40	0.4032	49.1	38.7	0.4408	46	22.2	0.3255
Professionals	87.4	207	0.7026	51.4	99.5	0.6594	38.2	76.5	0.6670
Technicians and associate professionals	52.1	81	0.6086	42.3	69	0.6199	37	46.8	0.5585
Clerical support workers	12.6	34.3	0.7313	12.2	38.1	0.7575	10.7	28	0.7235
Service and sales workers	39	112	0.7422	32.2	104	0.7634	22.8	64.5	0.7388
Skilled agricultural, forestry and fishery workers	10.7	7.8	0.4216	19.3	10.9	0.3609	6.5	3.5	0.3500
Craft and related trades workers	130	33.9	0.2068	95.7	19.5	0.1693	77.8	12	0.1336
Plant and machine operators, and assemblers	114	33	0.2239	78.3	7.1	0.0831	56.9	19.4	0.2543
Elementary occupations	46.2	54.3	0.5403	54.2	58.4	0.5187	22.1	31.5	0.5877
Other	4.6		–	–	–	–	–	–	–

Source: adapted on the basis of Lithuanian, Latvian and Estonian Statistics departments (2015)

The data provided in table 8 discloses a clear connection between occupation and gender in the Baltic States, confirming the scientific insight on traditional gender dispersion among the type of occupation:

- the masculine occupations (managers, skilled agricultural, forestry and fishery workers, craft and related trades workers, plant and machine operators, and assemblers);
- the feminine occupations (professionals, technicians and associate professionals, clerical support workers, service and sales workers).

This joint trend of the three Baltic States allows this research to make an assumption that the gender pay gap mostly depends on the classification of occupation by gender (Table 8). There is a significant male dominance in the managers section where the

level of wages is extremely high. Whereas, females dominate in the sections where the level of wage is lower. These occupations are professionals, clerical support workers and service and sales workers. This information leads to the finding that the distribution of employees by occupation has a significant influence to the wage and men's wages tend to be higher compare to women's. However, there is not enough data in order to fully study the occupation effect on gender pay, therefore comprehensive research, both on occupations and on exact specific positions has not been performed. Also it should be noted that the proportion of female managers in Estonia is significantly lower (32.55 percent) compared to Lithuania (40.32 percent) and Latvia (44.08 percent), which overall affects gender pay differentiation.

Based on the theoretical insights, the working time verses the gender pay gap was analyzed. This was done by analyzing both full and part-time employment. Table 9 reveals the dynamics of part-time employees in the European Union and the Baltic States for the period 2008 to 2014.

Table 9. The percent of part-time employees aged 15–64 from the all employees (%)

Country/Years	Age of 15–64	2008	2009	2010	2011	2012	2013	2014
European Union (27)	Males	7.0	7.4	7.9	8.1	8.4	8.7	8.8
	Females	30.6	30.9	31.4	31.7	32.1	32.5	32.4
Lithuania	Males	4.8	6.7	6.4	6.7	6.9	6.4	6.4
	Females	8.3	9.1	8.9	9.9	10.7	10.2	10.6
Latvia	Males	4.3	6.8	7.6	7.0	6.7	5.7	4.7
	Females	7.6	9.5	10.9	10.4	11.0	9.4	8.9
Estonia	Males	3.6	6.2	6.1	5.0	5.1	5.5	5.7
	Females	9.4	12.6	13.4	13.8	13.3	12.4	11.2

Source: adapted by on the basis of Eurostat (2015) data

After the analysis of the available data, two fundamental conclusions could be drawn. First, given the fact that women are more likely to work part-time, it can be stated that this results in the lower level of wage for women compare to men. The data clearly shows that the percentage of part-time female workers is far greater across the European Union (32.4%) than in any of the Baltic countries (Lt – 10.6%, Lv – 8.9% & ES – 11.2%, which draws the conclusion that either overall less females have part-time work in the Baltics or socially there is less opportunity for women to have part-time work. This leads to the second conclusion that women in Baltic countries therefore have a greater workload and in comparison to the developed countries of European Union the wage rate is still low. In summary it can be said that part-time workers have an impact on the gender pay gap. The smaller the gap between part-time working men and women, the lower is the gender pay gap. This partly explains the Estonian case where the gender pay gap is the highest in the three Baltic countries as this country, compared to Lithuania and Latvia, has a larger part of women working part-time. It is necessary to emphasize the fact that the gender pay gap in the Baltic countries would be much higher if the workload rates would be equal to the economically developed countries in EU.

Summarizing the current situation of social determinants in the Baltic States, it should be noted that the insights regarding the influence of the traditional distribution of occupation to the gender pay gap were identified. Moreover, the analysis of data revealed that a significant impact on the gender pay gap in the Baltic States is identified to the determinant that reflects the position of male and female in the labor market: the relatively small number of women working part-time.

**Discussion.** An analysis of scientific literature, legislation and statistical data identifies that the existing gender pay differentiation is still one of the most important economic and social problems in many European Union countries, including the Baltics. It has been determined that the Baltic countries have many common features that affect gender pay gap trends. An analysis of the legal and political environment of the Baltic States identified three common characteristics: the same geopolitical situation, similar economic situation and the current European Union legislation that is synchronized with national legislation which should ensure the equality for males and females. These findings confirm P. Dolton (2010), V. Gerikienė (2003), L. Žiogelytė (2012) insights on common existing global determinants. The scientists proposition was proved, which states that the existing gender wage differentiation depends on economic determinants, such as distribution of workers by gender and kind of economic activity. The same kind of economic activities with the highest rate of gender pay gap dominates in the Baltic States and should be considered as a joint trend for the region. The results of research only confirm the theoretical insights that there is a certain dispersion of workers by gender in the labor market and among the different kinds of economic activities (Asplund, 2011; Žiogelytė, 2012). In the category of social determinants, the tendency of common indicators of gender occupational structure and part-time workers for the Baltic States were identified. This confirmed J. Čiburienė (2008) assumptions that women dominate in occupations which have a lower level of wage compare to men, who dominate in occupations with a higher level of wage. It has been identified that in the Baltics case, men are dominate in the managers section where level of wages is extremely high, while women dominate in sections with a lower level of wage, such as professionals, clerical support workers and service and sales workers.

### 3. Conclusions

1. Although it was identified that the Baltic countries as a single global space has many common features, an important conclusion is that these external determinants are not the only ones affecting gender pay gap. It should be noted that the results of this research implied new insights on the influence of external determinants to the studied problem.

2. It should be noted that the existing influence of legal norms is not sufficiently implemented into the practice aspect. Despite existing legislation on gender equality, wages of women in the Baltic countries is still lower than that of men. The pay gap in the public and private sectors disclose that there are many unresolved problems related to legal-political determinants.

3. The right and strategically based measures to equal pay do not necessarily determine the smaller gender pay gap in the Baltic countries (especially in Lithuania and Latvia), especially when compared with the European Union example. The analysis of characteristic differences of Estonia, Latvia and Lithuania revealed that in some cases, progress in economic and social determinants may not reduce the gender pay gap, but rather increase it. In countries with higher wage rates, a higher differentiation between the minimum and average wages the level of gender pay gap has been identified.

4. Another trend identified by this research is that part-time work does not lower the gender pay gap but rather increases it, and therefore requires deeper research across all European Union countries. Such research could then be applied to national strategies to initiate the reduction of the gender pay gap.

## References

Alaez-Aller, R., Longás-García, J. C., Ullibarri-Arce, M. (2011). Visualising Gender Wage Differences in the European Union. *Gender // Work & Organization*. No. 18: 49–87.

Asplund, R., Napari, S. (2011). Intangibles and the gender wage gap: an analysis of gender wage gaps across occupations in the Finnish private sector // *Journal of Labor Research*. No. 32: 305–325. – <http://dx.doi.org/10.1007/s12122-011-9114-9> [13 04 2015].

Balvočiūtė, R., Skunčikienė, S. (2008). Darbo užmokesčio Lietuvos organizacijose struktūrinis pjūvis // *Ekonomika ir vadyba*. Nr. 3: 25–29.

Čiburienė, J., Guščinskienė, J. (2008). Darbo rinkos struktūros pokyčiai integracijos į Europos sąjungą sąlygomis // *Economics & Management*. No. 13: 475–483.

Cohen, P. N., Huffman, M. L. (2007). Working for the woman? Female managers and the gender wage gap // *American Sociological Review*. No. 72: 681–704. – <http://dx.doi.org/10.1177/000312240707200502> [13 04 2015].

Daukantienė, N. (2006). Darbo rinkos pokyčiai Lietuvoje: moterų ir vyrų padėties aspektai // *Filosofija. Sociologija*. No. 4: 46–54.

Dolton, P., Bondibene, C. R., Wadsworth, J. (2010). The UK National Minimum Wage in Retrospect // *Fiscal Studies*. Vol. 31. No: 4: 509–534. – <http://dx.doi.org/10.1111/j.1475-5890.2010.00123.x> [13 04 2015].

EC (European Commission). (2014). Commission recommendation on strengthening the principle of equal pay between men and women through transparency. EU, Brussels. – [http://ec.europa.eu/smart-regulation/impact/ia\\_carried\\_out/docs/ia\\_2014/c\\_2014\\_1405\\_en.pdf](http://ec.europa.eu/smart-regulation/impact/ia_carried_out/docs/ia_2014/c_2014_1405_en.pdf) [13 04 2015].

EC (European Commission) (2010). Equality Pays Off (EPO) project. EU, Brussels. – [http://www.msssi.gob.es/ssi/igualdadOportunidades/iEmpleo/Igualdad\\_salarial/Proyecto\\_Equality\\_Pays\\_Off\\_ingles.pdf](http://www.msssi.gob.es/ssi/igualdadOportunidades/iEmpleo/Igualdad_salarial/Proyecto_Equality_Pays_Off_ingles.pdf) [13 04 2015].

EC (European Commission). (2010). Strategy for equality between women and men 2010–2015. EU, Brussels. – <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0491:FIN:en:PDF> [13 04 2015].

EC (European Commission). (2007). Tackling the pay gap between women and men. EU, Brussels. – <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1427049533405&uri=CELEX:52007DC0424> [13 04 2015].

Eurostat (2014). – [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Wages\\_and\\_labour\\_costs/lt#Vyr.C5.B3\\_ir\\_moter.C5.B3\\_darbo\\_u.C5.BEmokes.C4.8Dio\\_skirtumas\\_2](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Wages_and_labour_costs/lt#Vyr.C5.B3_ir_moter.C5.B3_darbo_u.C5.BEmokes.C4.8Dio_skirtumas_2) [13 04 2015].

Gerikienė, V., Blažienė, I. (2003). Minimum wage differentiation: International attitudes and EU experience // *Jurisprudence*. Vol. 40. No. 32: 56–64.



- Hoxna, A. (2010). Causality between prices and wages // *Theoretical and applied economics*. Vol. 5. No. 546: 27–48.
- Ilayperuma S. K., Kaestner, R. (2004). Do Minimum Wages Affect Non-Wage Job Attributes-Evidence on Fringe Benefits // *Indus. & Lab. Rel. Rev.* No. 58: 52–70.
- Jungtinių Tautų organizacijos konvencija „Dėl visų formų rasinės diskriminacijos panaikinimo“ (1998) // *Valstybės žinios*. No. 108-2957.
- Koeniger, W., Nunziata, L., Leonardi, M. (2007). Labour market institutions and wage inequality // *Industrial and Labor Relations review*. No. 60: 340–356. – <http://dx.doi.org/10.1177/001979390706000302> [13 04 2015].
- LR moterų ir vyrų lygių galimybių įstatymas. (1998) // *Valstybės žinios*. Nr. 112-3100.
- LR lygių galimybių įstatymas (2003) // *Valstybės žinios*. Nr. 114-5115.
- Mačernytė-Panomariovienė, I. (2008). The right to receive fair remuneration for work in the Republic of Lithuania // *Jurisprudencija*. Vol. 1. No. 103: 30–36.
- Masso, J., Krillo, K. (2011). Labour markets in the Baltic States during the crisis 2008–2009: the effect on different labour market groups // *The University of Tartu Faculty of Economics and Business Administration Working Paper*. No. 79. – <ftp://ftp.repec.org/opt/ReDIF/RePEc/mtk/febpdf/febawb79.pdf> [12 06 2015].
- Petersen, T., Penner, A. M., Hogsnes, G. (2010). Male Marital Wage Premium: Sorting vs. Differential Pay // *Indus. & Lab. Rel. Rev.* No. 64: 283–304.
- Pollan, W. (2009). How large are wage differentials in Austria? // *Empirica*. Vol. 36. No. 4: 389–406. – <http://dx.doi.org/10.1007/s10663-008-9099-7> [13 04 2015].
- Rudytė, D., Beržinskienė, D., Prichotskytė, F. (2008). Darbo užmokesčio diferenciacija: veiksniai ir tendencijos // *Ekonomika ir vadyba: aktualijos ir perspektyvos*. No. 3: 251–261.
- Startiene, G., Remeikiene, R. (2008). The influence of demographical factors on the interaction between entrepreneurship and unemployment // *Inžinerinė Ekonomika-Engineering Economics*. No. 4: 60–70.
- Statistics Lithuania (2014). – <http://osp.stat.gov.lt/pranesimai-spaudai?articleId=1553141> [13 04 2015].
- Tamašauskienė, Z., Šileika, A., Mačiulytė, A. (2008). Theoretical and Practical Aspects of Wages Differentiation // *Socialiniai Tyrimai*. No. 3: 165–178.
- Valackienė, A., Krašenkienė, A. (2007). Diskriminacijos raiška ir valstybės institucijos bei visuomeninis sektorius // *Filosofija. Sociologija*. Vol. 18. Nr. 2: 32–44.
- Žiogelytė, L. (2012). Vyrų ir moterų darbo užmokesčio skirtumų Lietuvoje vertinimas // *Ekonomika ir vadyba: aktualijos ir perspektyvos*. Nr. 2: 6–16.
- Žiogelytė, L. (2010). Wage Change in the Lithuanian Labour Market // *Science-Future of Lithuania/Mokslas-Lietuvos Ateitis*. No. 2: 119–125.

## VYRŲ IR MOTERŲ DARBO UŽMOKESČIO DIFERENCIACIJA BALTIJOS ŠALYSE

**Violeta Šilingienė, Gintautas Radvila**  
*Kauno technologijos universitetas*

*Pateikta 2016 08 13; priimta 2016 09 13*

### **Santrauka**

Straipsnyje sprendžiama problema – kokie išoriniai veiksniai turi reikšmingą įtaką vyrų ir moterų darbo užmokesčio skirtumams? Straipsnio tikslas – nustatyti vyrų ir moterų darbo užmokesčio diferenciaciją Baltijos šalyse lemiančius išorinius veiksnius. Tyrimas leido nustatyti vyrų ir moterų darbo užmokesčio skirtumų pokyčius Baltijos šalyse; įvertinti ir palyginti lyčių darbo užmokesčio skirtumus pagal išskirtus teisinius-politinius, ekonominius ir socialinius veiksnius; įvardinti Baltijos šalių bendrus bruožus bei skirtumus, lemiančius vyrų ir moterų darbo užmokesčio diferenciaciją. Straipsnyje atlikto tyrimo rezultatai leidžia daryti išvadą, kad ekonomikos augimo sąlygojamas darbo užmokesčio lygio augimas, vyrų užimtumo didinimas bei moterų, dirbančių nepilną darbo dieną, skaičiaus augimas, kas yra ekonomiškai išsivysčiusių šalių bruožas, gali neišspręsti, o, priešingai, paaštrinti situaciją vyrų ir moterų darbo užmokesčio atotrūkio mažinime. Tai suponuoja gilesnių tyrimų visos Europos Sąjungos šalių kontekste poreikį bei gautų rezultatų adaptavimą vyrų ir moterų darbo užmokesčio diferenciaciją mažinančiose strategijose nacionaliniame lygmenyje.

*Raktiniai žodžiai: darbo užmokestis, diferenciacija, vyrų ir moterų užmokesčio diferenciacija.*  
*JEL kodai: J30, M12.*