Gender pay gaps in the European Union
## — a statistical analysis —

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2021 edition

eurostat
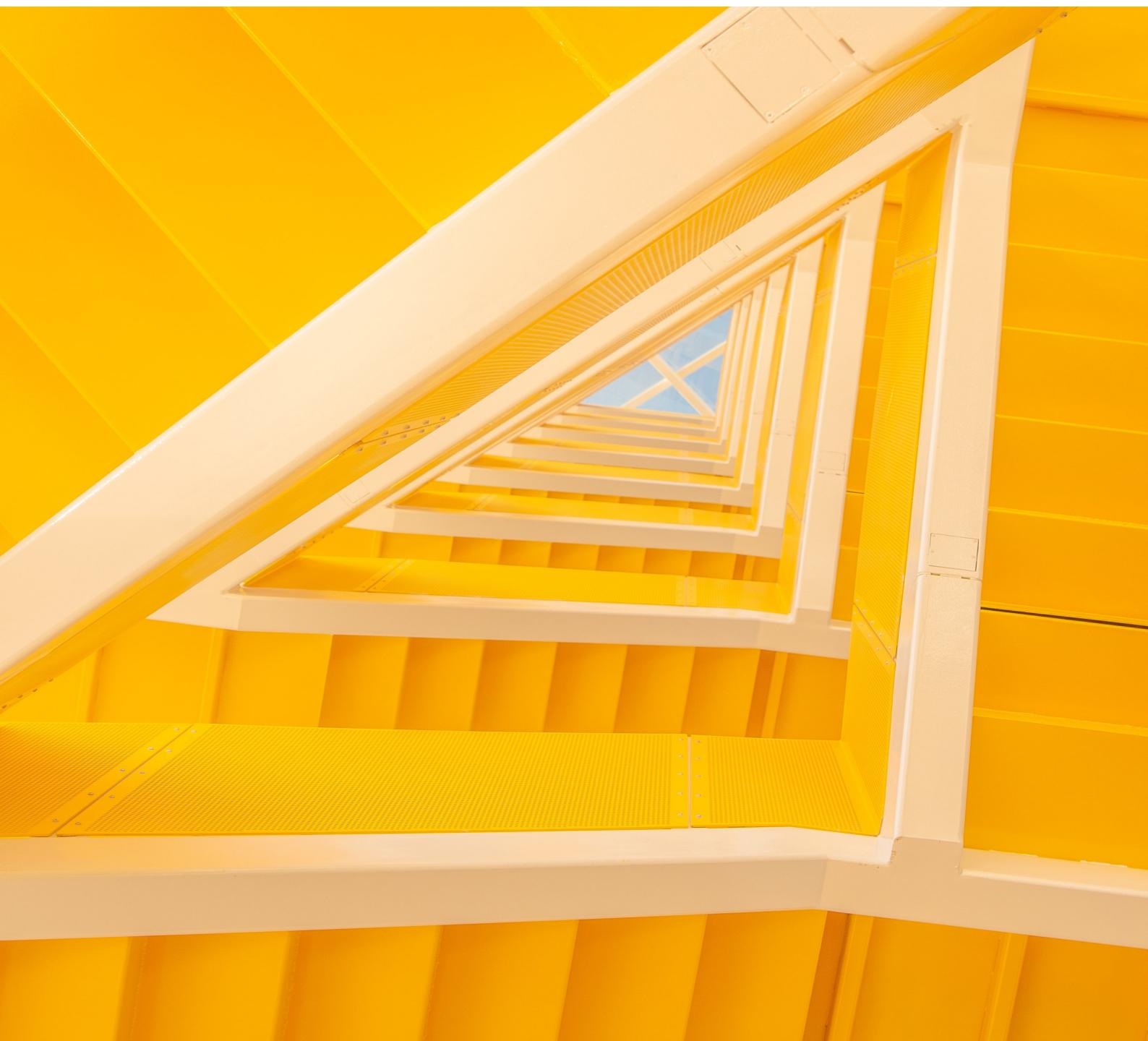
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Foreword

Tackling possible discrimination in earnings between men and women is one of the key priorities of gender policies at both EU and national levels. The unadjusted gender pay gap (GPG), which is calculated as the relative difference between the average earnings of women and men, is widely used as the key indicator to monitor progress in this area.

However, the unadjusted GPG does not capture discrimination as such in the sense of 'equal pay for equal work or work of equal value'. Indeed, the unadjusted GPG combines (1) possible differences in the average characteristics of men and women in the labour market (e.g. different occupations, economic activities and average age) and (2) gender gaps for the same average characteristics.

To analyse the GPG, Eurostat has used microdata from the Structure of Earnings Survey (SES) 2018. The microdata cover two broad areas: the earnings of individual employees and the observed characteristics of individual employees.

A statistical method known as the Blinder-Oaxaca method was applied on this data set to single out the contribution of each observed characteristic to the unadjusted GPG. According to this decomposition, the unadjusted GPG can be split into three parts: (1) the part explained by the different average characteristics of male and female employees, (2) the part explained by gender differences in financial returns for the same average characteristics and (3) the unexplained residual.

In a first edition of this study, the analysis was limited to the part of the unadjusted GPG explained by the different characteristics. Eurostat discussed the corresponding methodology with the Working Group on Labour Market Statistics (LAMAS) in October 2017 and the European Directors of Social Statistics in March 2018. Results based on the SES 2014 data were published as a statistical working paper: *A decomposition of the unadjusted gender pay gap using Structure of Earnings Survey data*.

In this edition, based on the latest SES data (2018), we also examine the second category of GPG determinants, namely differences in the financial returns received by men and women with the same average characteristics. Moreover, we have included in the Oaxaca model, as explanatory variables, the major socio-economic regions at the first level of the 'Nomenclature des Unités Territoriales Statistiques' (NUTS 1).

We would like to thank all colleagues from the LAMAS Working Group and from the Labour Market and Lifelong Learning Unit of Eurostat for their valuable comments.

We hope that the methods and results presented in this publication will help data users and policymakers to better interpret GPGs in the European Union.

1 | **Introduction**

1.1. Policy background

The principle of 'equal pay for male and female workers for equal work or work of equal value' has been enshrined in the European treaties since 1957. It is currently laid down in Article 157 of the Treaty on the Functioning of the European Union. An important impetus for implementing the equal pay principle was Directive 2006/54/EC of the European Parliament and of the Council of 5 July 2006 on the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation (recast) ([1]). It was complemented in 2014 by Commission Recommendation 2014/124/EU of 7 March 2014 on strengthening the principle of equal pay between men and women through transparency ([2]).

This legal framework is a prerequisite for achieving the broader objective of gender equality in the European Union (EU). It acts as a cornerstone for closing the gender pay gap (GPG). It reveals possible, often unconscious, gender stereotypes, bias and beliefs distorting pay setting and indirectly contributing to the perpetuation of the other root causes of the GPG, like sectoral and vertical segregation and a general lack of gender equality (e.g. regarding educational and career choices).

The European Commission has confirmed that 'reducing the gender pay, earnings and pension gaps and thus fighting poverty among women' is among its top priorities. It has undertaken a number of initiatives in this field as part of the Gender equality strategy 2020–2025.

The Commission communication that outlines this strategy ([3]) calls for an increased participation of women in the labour market and equal participation across different sectors of the economy and working-time patterns. Moreover, it stresses the need for affordable care services of sufficient quality and calls for a better sharing of unpaid working hours between women and men.

In addition, it calls for policies and measures for those facing particular barriers to entry into the labour market, such as migrant women and single parents.

([1])   OJ L 204, 26.7.2006, p. 23.
([2])   OJ L 69, 8.3.2014, p. 112.
([3])   Commission communication – A Union of Equality: Gender equality strategy 2020–2025, COM(2020) 152 final.

The document also argues that the causes and consequences of the gender pension gap need to be addressed, as they are an obstacle to the economic independence of women in old age, when they face a higher risk of poverty than men do.

The right of women and men to equal pay for work of equal value belongs to the European Pillar of Social Rights, which was endorsed at the Social Summit for Fair Jobs and Growth, Gothenburg, Sweden, November 2017. At the Porto Social Summit of May 2021, EU leaders reaffirmed their commitment to the implementation of the European Pillar of Social Rights according to the action plan set up by the Commission in March 2021. The unadjusted GPG belongs to the scoreboard of indicators used for the monitoring of the action plan.

To reduce gender inequalities in earnings, the European Commission carries out a number of actions. One of them is the European Equal Pay Day, which takes place every year in November. This day raises awareness about the remaining (unadjusted) gap between the average earnings of men and women.

The European Commission also uses the European semester as an instrument to coordinate the efforts of EU Member States in addressing the root causes of the gender pay and pension gaps. The unadjusted GPG is widely used in this policy context as the key indicator to monitor and evaluate progress in reducing the GPG.

Moreover, on 4 March 2021, the Commission proposed a directive on pay transparency to ensure that women and men in the EU get equal pay for equal work.

1.2. The unadjusted gender pay gap

Eurostat publishes the unadjusted GPG indicator annually, in cooperation with the national statistical institutes of the EU Member States and European Free Trade Association (EFTA) states. It is based on the methodology of the SES, which is released every 4 years. The unadjusted GPG is derived from SES data recorded in reference years 2002, 2006, 2010, 2014 and 2018, and from other national sources for the years between surveys. The scope and coverage of the unadjusted GPG are as follows: (1) economic activity sections B to S with the exclusion of O [4], defined by the statistical classification of economic activities in the European Community (NACE) Revision 2 [5], (2) only enterprises with 10 employees or more, (3) no restrictions for age and hours worked, and (4) both full-time and part-time employees are included. The definition of the unadjusted GPG, expressed as a percentage, is as follows:

$$\frac{\text{Mean (gross) hourly earnings of men} - \text{Mean (gross) hourly earnings of women}}{\text{Mean (gross) hourly earnings of men}}$$

The term 'mean hourly earnings' instead of 'mean gross hourly earnings' will be used hereafter in the document.

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[4]   The unadjusted GPG covers all economic activities except agriculture, forestry and fishing (section A), public administration, defence and compulsory social security (section O), and activities of households as employers, undifferentiated goods and services producing activities of households for own use (section T).

[5]   OJ L 393, 30.12.2006, p. 1–39.

As an unadjusted indicator, the GPG gives an overall picture of the differences in pay between men and women. It measures a concept that is broader than the concept of 'equal pay for equal work or work of equal value'. A part of the difference in earnings between men and women can be explained by differences in the average characteristics of male and female employees (European Foundation for the Improvement of Living and Working Conditions, 2010). The differences in the average characteristics can result from many factors, including the concentration of one sex in certain economic activities or the concentration of one sex in certain occupations. The first phenomenon is called 'sectoral gender segregation' and the second one is called 'occupational gender segregation'.

Sectoral gender segregation may explain part of the difference in earnings between men and women, since women tend to be concentrated in the low-paying economic sectors. For example, women tend to work in education and health domains whereas men tend to work in the finance and IT sectors.

Similarly, occupational gender segregation may explain the difference in earnings between men and women, since one sex tends to be concentrated in low-paying occupations. Occupational gender segregation may also be partially caused by men being more likely to be promoted to supervisory and management positions than women due to discrimination or self-restraints. The term 'glass ceiling' is used as a metaphor to describe an invisible barrier that keeps women from rising beyond a certain level in an enterprise's hierarchy.

Another possible source of GPGs is the difference between the financial returns paid to women versus those paid to men with the same average characteristics. Such differences may stem from 'unequal pay for equal work' but also from the lack of information on detailed economic activities and occupations in which men or women may be concentrated. Such effects of segregation cannot be captured directly because SES variables are collected at a rather aggregated level (e.g. NACE sections).

The unadjusted GPG is therefore a complex indicator. Its measurement covers possible discrimination between men and women through 'unequal pay for equal work'; the differences in the average characteristics of male and female employees and further segregation effects that would show up in the different financial returns of men and women.

1.3. General methodology

To differentiate the different factors at work in the GPG, Eurostat applied the Oaxaca-Blinder methodology, which is commonly used at the national level, with different variants (see Appendix 2). In some cases, countries use a broader set of variables, which are not all available at EU level. Besides methodological differences, this explains why national results sometimes deviate substantially from EU figures.

Eurostat published the results of the first study, based on SES 2014, as a statistical working paper. In this new edition, the methodology in two main aspects has been improved:

– First, the regional dimension has been taken into account by including the NUTS 1 regions in the model;

– Second, the derivation of the adjusted GPG – based on average earnings from the results of the Mincer equation (expressed in logarithms) – is now based on an exact formula (see in Chapter 3.1) instead of a proportional scaling.

In Section 2 of the publication, readers will find information on the data source used (Chapter 2.1), the methodology (Chapter 2.2) and programming (Chapter 2.3).

In Section 3 we will explain how the results of the Oaxaca decomposition are used to adjust the GPG (Chapter 3.1), measure the impact of different average characteristics of male and female employees (Chapter 3.2) and compare their respective financial returns (Chapter 3.3).

In Section 4 we will review the results obtained for the adjusted GPG (Chapter 4.1) and broaden the analysis to other segregation effects (Chapter 4.2).

We will then present the indicator developed to combine all these effects (Chapter 4.3) before concluding in Section 5.

2 | Data source and methodology

2.1. Data source

To analyse the unadjusted GPG, Eurostat has used microdata from the latest SES data (SES 2018). The microdata cover two broad areas: the earnings of individual employees and the observed characteristics of individual employees. These observed characteristics include: (1) the personal characteristics of individual employees, such as age, education and job experience, (2) the types of job done by individual employees, and (3) the types of companies or enterprises that individual employees work for.

The scope of the microdata in the decomposition analysis is the same as the scope and coverage of the unadjusted GPG calculated for:

- economic activity sections B to S with the exclusion of O according to NACE Revision 2 ([6]);
- enterprises with 10 employees or more;
- employees with no restrictions for age and hours worked and including full- and part-timers.

Apprentices and employees working in occupations classified under the International Standard Classification of Occupations (ISCO) as ISCO 0 (Armed Forces) and ISCO 6 (Skilled Agricultural, Forestry and Fishery Workers) have been excluded from the sample.

2.2. Methodology

The regression equations used in this study are a result of the adjusting and expansion of the standard Mincer (1974) earnings equation, which relates, in a linear way, the log hourly earnings to years of education and a quadratic function of job experience (tenure).

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[6]   The unadjusted GPG covers all economic activities except agriculture, forestry and fishing (section A), public administration, defence and compulsory social security (section O), and activities of households as employers, undifferentiated goods and services producing activities of households for own use (section T). OJ L 393, 30.12.2006, p. 1–39.

After adjusting a regression model to the log hourly earnings of both men and women, Eurostat applied the Oaxaca (1973) decomposition, also called the Blinder-Oaxaca decomposition, to decompose the unadjusted GPG.

In the first stage, we ran a regression analysis to estimate the earnings equations for men (M) and women (W) separately, as detailed in the following equations:

$$\ln y_i^M = \beta_0^M + \sum_{k=1}^{K} x_{ki}^M \beta_k^M + \varepsilon_i^M$$

$$\ln y_i^W = \beta_0^W + \sum_{k=1}^{K} x_{ki}^W \beta_k^W + \varepsilon_i^W$$

Where:

- $\ln y_i$ represents the natural log of hourly earnings for observation i;
- x_{ki}, from k=1 to k=K, are explanatory variables covering the observed personal, job and enterprise characteristics that may impact on the log hourly earnings of individual i;
- β_0 is a constant and β_k, from k=1 to k=K, are the parameters for the corresponding variables covering the observed characteristics;
- ε_i is a disturbance term for observation i, independent from each other and normally distributed with average zero and same variance (i.e. 'white noise').

The regression analysis includes the SES variables as explanatory variables covering the observed personal, job and enterprise characteristics (see Table 1). More information on the SES variables can be found in the SES implementing arrangements (Eurostat, 2021b).

In Eurostat's model, the regression equations relate the log hourly earnings to age and age[2], education, occupation, job experience (in the current enterprise) and job experience[2], employment contract, working time, principal economic activity, enterprise size, enterprise control and geographical location of the enterprise. For some countries (Greece, Spain, France, Italy, Cyprus, Latvia and Luxembourg), the regression coefficient for job experience[2] was not found to be significant and this variable was therefore excluded from the model.

The explanatory variables covering education, occupation, employment contract, working time, principal economic activity, enterprise size, enterprise control and region are categorical.

Table 1: **Observed characteristics from the Structure of Earnings Survey used in the regression analysis**

Observed characteristics	Values	Codes of the corresponding SES variables
Personal and job characteristics		
Age	Years / years^2	Variable 2.2
Education	Level of education according to the ISCED classification* in the four groups: Group 1 (ISCED 0+1+2), Group 2 (ISCED 3+4), Group 3 (ISCED 5+6), Group 4 (ISCED 7+8)	Variable 2.5
Occupation	Occupation according to the ISCO-08** classification at 2-digit level	Variable 2.3
Job experience in the current enterprise	Years / years^2	Variable 2.6
Employment contract	Indefinite / temporary duration	Variable 2.8
Working time	Full time or part-time	Variable 2.7
Enterprise characteristics		
Principal economic activity	Economic activity according to the NACE Revision 2 classification*** at section level	Variable 1.3
Enterprise size	Enterprise with 10–49 employees, 50–249 employees, 250–499 employees, 500–999 employees or 1 000+ employees	Variable 1.2
Enterprise control	Public or private	Variable 1.4
Geographical location of the enterprise	NUTS 1 region where the enterprise is located	Variable 1.1

*   ISCED: International Standard Classification of Education

**   ISCO-08: International Standard Classification of Occupations

***   NACE Revision 2: Statistical classification of economic activities in the European Community

In the second stage, a decomposition analysis of the difference between the means of log hourly earnings of men and women is carried out:

$$\Delta \; = \; \overline{\ln y}^M - \; \overline{\ln y}^W$$

The Oaxaca decomposition uses the following regression property for the means of log hourly earnings of men and women:

$$\overline{\ln y}^M \; = \; \hat{\beta}_0^M + \sum_{k=1}^{K} \bar{x}_k^M \, \hat{\beta}_k^M$$

$$\overline{\ln y}^W \; = \; \hat{\beta}_0^W + \sum_{k=1}^{K} \bar{x}_k^W \, \hat{\beta}_k^W$$

These equations provide insights into the male and female earnings structures by showing the relationship between the mean of log hourly earnings and the observed average characteristics for men and women ($\bar{x}_k^M$ and $\bar{x}_k^W$, respectively) as well as the corresponding financial returns ($\hat{\beta}_k^M$ and $\hat{\beta}_k^W$, respectively).

Within the decomposition approach, it must be decided which earnings structure constitutes the non-discriminatory benchmark against which to decompose the difference Δ between the means of log hourly earnings of men and women (Bazen, 2011). It is assumed, in accordance with the definition of the unadjusted GPG, that the male earnings structure constitutes this benchmark ([7]). The estimated constant and coefficients in the men's equation are treated as the non-discriminatory benchmarks for the financial returns to characteristics of employees.

The differences between the logarithms of the earnings of men and women can thus be decomposed as follows:

$$\overline{\ln y}^M - \overline{\ln y}^W \;=\; \underbrace{\sum_{k=1}^{K} \hat{\beta}_k^M \left(\bar{x}_k^M - \bar{x}_k^W \right)}_{\substack{\text{Different characteristics} \\ (E)}} \;+\; \underbrace{\sum_{k=1}^{K} \bar{x}_k^W \left(\hat{\beta}_k^M - \hat{\beta}_k^W \right)}_{\substack{\text{Different financial returns} \\ (U1)}} \;+\; \underbrace{\left(\hat{\beta}_0^M - \hat{\beta}_0^W \right)}_{\substack{\text{Residual} \\ (U2)}}$$

Where k=1 to k=K refers to the corresponding variables covering the observed characteristics

If we call the gap explained by the different average characteristics of male and female employees *E*, the unexplained part caused by different financial returns *U1* and the remaining residual *U2*, we have:

$$E \;=\; \sum_{k=1}^{K} \hat{\beta}_k^M \left(\bar{x}_k^M - \bar{x}_k^W \right)$$

$$U1 \;=\; \sum_{k=1}^{K} \bar{X}_k^M \left(\hat{\beta}_k^M - \hat{\beta}_k^W \right)$$

$$U2 = \left(\hat{\beta}_0^M - \hat{\beta}_0^W \right)$$

and:

$$\overline{\ln y}^M - \overline{\ln y}^W \;=\; E + U1 + U2$$

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[7] The following other options are possible:
– the female earnings structure constituting a non-discriminatory benchmark (Oaxaca, 1973);
– both the female and male earnings structures constituting non-discriminatory benchmarks with some weighted average applied (Cotton, 1988; Reimers, 1983);
– the whole population earnings structure constituting a non-discriminatory benchmark (Neumark, 1988).

2.3. Programming

The Statistical Analysis System (SAS) software was used to carry out the regression analysis and decomposition. Because the SES is a two-stage survey, Eurostat applied the SAS procedures that have been created for complex surveys (Lewis, 2017), namely 'proc surveyreg' and 'proc surveymean'. The procedure 'proc surveyreg' was used to fit the linear regression models and the procedure 'proc surveymean' was used to calculate the means of the variables.

When applying these SAS procedures, the sampling design of the SES was taken into account. The sampling procedure used for the SES usually contains two stages. In the first stage, a stratified random sample of enterprises (or local units) is drawn. For the second stage, a simple random sample of employees is usually taken within each of the selected enterprises.

This sample design implies that enterprises can be treated as clusters of employees. These clusters can be identified using one of the SES keys, namely 'KEY_L'. The sample weights for employees are provided in SES variable 5.2, 'Grossing up factor for the employees'. The sample weights and clusters were specified in the SAS procedures 'proc surveyreg' and 'proc surveymean'. More information on the SES keys and weights can be found in the SES implementing arrangements (Eurostat, 2018).

3 Results and analysis

3.1. Adjusting the gender pay gap

Here we explain how the results of the Mincer equation, for the explained part *E*, were used to adjust the GPG.

As shown in the last equation of Chapter 2.2, the Oaxaca decomposition can be expressed as:

$$\overline{\ln y}^M - \overline{\ln y}^W = E + U$$

Where *U = U1 + U2* represents the part of the gap between the logarithms of the male versus female earnings which is not explained by the difference in their average characteristics caused by gender segregation in, for example, occupations or economic sectors.

We correct the mean hourly earnings of women for the explained part *E* and define:

$$\overline{\ln y}^{W\ adjusted} = \overline{\ln y}^W + E$$

The GPG definition is based on average hourly earnings:

$$GPG\ not\ adjusted = 1 - \left(\frac{\overline{y^W}}{\overline{y^M}}\right)$$

We define the GPG adjusted as:

$$GPG\ adjusted = 1 - \left(\frac{\overline{y^{W\ adjusted}}}{\overline{y^M}}\right)$$

$$= 1 - \left(\frac{\overline{y^W}}{\overline{y^M}}\right) \times \left(\frac{\overline{y^{W\ adjusted}}}{\overline{y^W}}\right)$$

$$= 1 - (1 - GPG\ not\ adjusted) \times \left(\frac{\overline{y^{W\ adjusted}}}{\overline{y^W}}\right)$$

The estimate for $\overline{y^{W\,adjusted}}$ can be derived from $\overline{\ln y}^{W\,adjusted}$ as follows:

$$\overline{y^{W\,adjusted}} = Exp\left(\overline{\ln y}^{W\,adjusted}\right) \times \overline{Exp(\varepsilon_\iota^W)}$$

$$= Exp\left(\overline{\ln y}^W\right) \times Exp(E) \times \overline{Exp(\varepsilon_\iota^W)}$$

Likewise:

$$\overline{y^W} = Exp\left(\overline{\ln y}^W\right) \times \overline{Exp(\varepsilon_\iota^W)}$$

Hence:

$$\left(\frac{\overline{y^{W\,adjusted}}}{\overline{y^W}}\right) = Exp(E)$$

Therefore:

$$GPG\ adjusted = 1 - (1 - GPG\ not\ adjusted) \times Exp(E)$$

Hence:

$$\textbf{GPG adjusted} = \textbf{Exp(E)} \times \textbf{GPG not adjusted} + [\textbf{1} - \textbf{Exp(E)}]\ \textbf{(I)}$$

The adjustment of the GPG (GPG – GPG adjusted) can be calculated as:

$$\textbf{GPG adjustment} = [\textbf{Exp(E)} - \textbf{1}](\textbf{1} - \textbf{GPG not adjusted})\quad \textbf{(II)}$$

Equation (II) may be applied to E as a whole or to each component: $\hat{\beta}_k^M(\bar{x}_k^M - \bar{x}_k^W)$ separately. This way, it is possible to measure how differences in the average profile of male and female employees contribute to the GPG, for each variable (age, occupation, education, etc.). This analysis is presented in the next paragraph.

3.2. Impact of differences in characteristics

Figure 1 and Table 2 present the results of a decomposition of the unadjusted GPG for 2018 into the part explained by differences in male and female characteristics (explained GPG) and the remainder (unexplained GPG).

At the EU level, the explained part represents 3.0 percentage points. This means that women are expected to earn 3.0 % less ([8]) than men, according to their average characteristics on the labour market (which are less remunerative than those of males). This rather limited adjustment is due to the fact that countries record positive or negative adjustments that partly cancel each other out at the EU level.

([8])   In order to convert the differences in the log (earnings) into % differences in earnings, we use the following formula: women earn $\left|Exp(-E_k) - 1\right|$ less (if E_k is positive) or more (if E_k is negative) than men, in %, where E_k is the part of the difference $(\overline{\ln y}^M - \overline{\ln y}^W)$ explained by variable k. Note that the relative gap: $\left|Exp(-E_k) - 1\right|$, expressed in %, is close to the opposite of the explained part: $\left|E_k\right|$ when the latter is close to 0.

As a result, the adjusted (or unexplained) GPG is 11.4 % against 14.4 % for the unadjusted GPG, that is, women still earn 11.4 % less than men, on average, after correcting for their different average characteristics.

However, this does not mean that the adjusted GPG measures discrimination through 'unequal pay for equal work'. Indeed, SES data omit some important variables, such as the total working experience ([9]) or the employee's household situation, which, if taken into account, might change the unexplained GPG. The latter indicator should rather be viewed as a 'residual gap', that is, the part of the unadjusted GPG that remains after correcting for the different characteristics of men and women in the labour market, as observed in SES data.

Figure 1 displays the unadjusted GPGs split into the parts explained/unexplained by the different characteristics of male and female employees, in all EU Member States and EFTA states.

Figure 1: Gender pay gap adjustments for characteristics, 2018
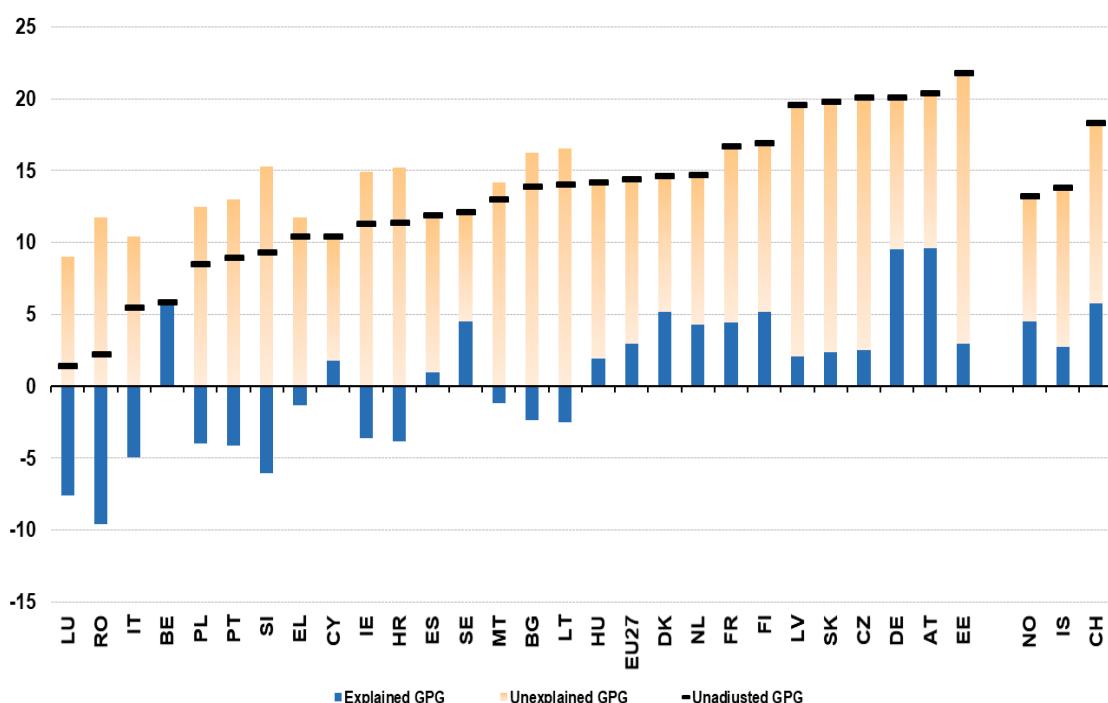
([9]) Total working experience is the total number of years the employee has been working as a professional in all enterprises right from the first job until the current one. In the SES, only information on job experience in the current enterprise is collected.

By comparing the ranking of countries according to their unadjusted and unexplained GPGs (Figures 2a and 2b), we can compute changes in their relative positions.

Figure 2a: Unadjusted gender pay gap (%), 2018
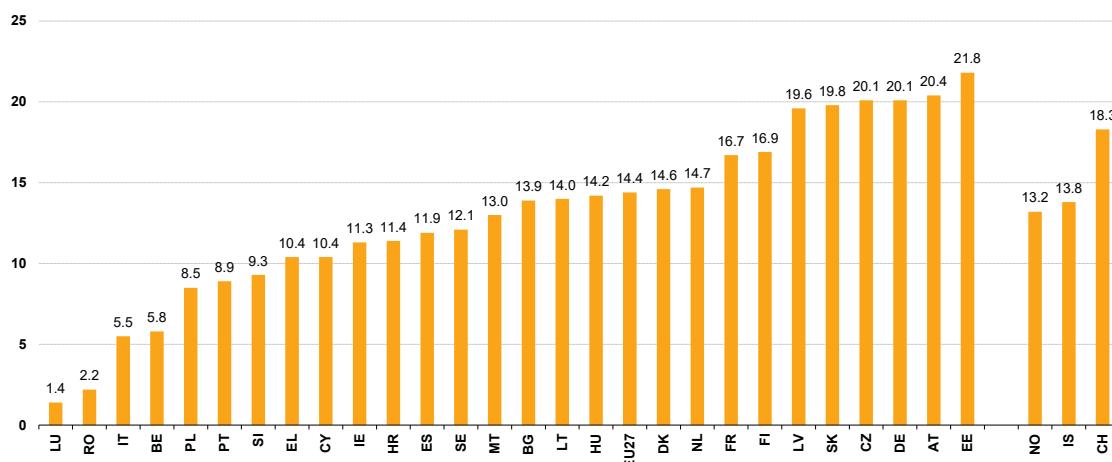
Figure 2b: Unexplained gender pay gap (%), 2018
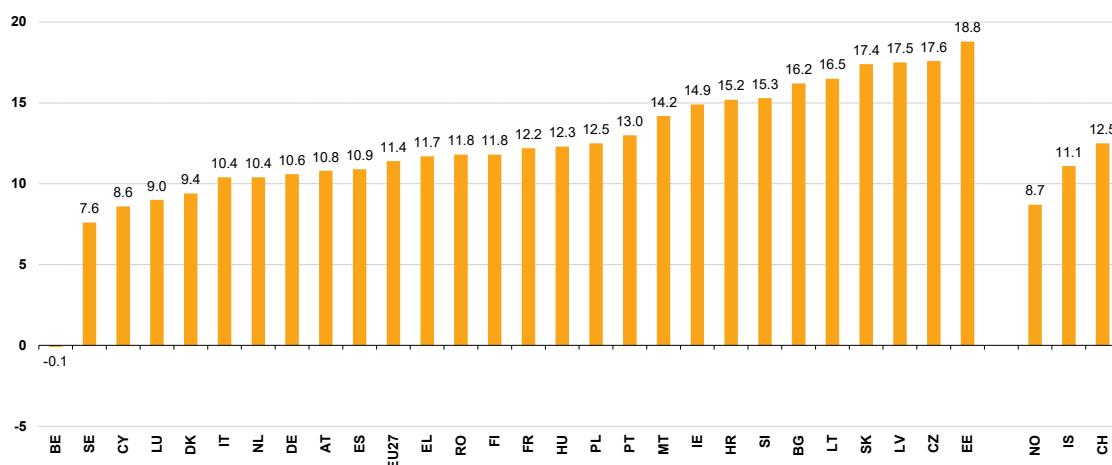
In particular, we observe that Germany, Austria, Denmark, the Netherlands and Sweden all moved by at least 10 positions downwards when moving from the unadjusted GPG to the unexplained GPG. Conversely, Slovenia, Portugal, Poland and Romania moved upwards by at least 10 positions, meaning that the GPG increased after accounting for the different (higher) characteristics of women. These latter cases reflect a selection bias in the population of female employees.

After having presented the explained part as a whole, it is interesting to look more closely at each explanatory factor. As shown in Figure 3 and Table 2, the explained part is strongly driven by economic activity (3.4 percentage points, which corresponds ([10]) to a pay gap of 3.3 %) and working time (1.5 %). Indeed, women work part-time and in lower-paying economic activities more often than men do. The positive explained gaps for those characteristics are partially offset by the negative gaps recorded mainly for education (− 1 %) and occupation (− 0.6 %). This means that women are expected to earn 1 % more than men would, due to their higher average education level. They should earn 0.6 % more due to their higher average occupations. Finally, there is no explained gap at the EU level for age and age^2 combined.

Among the Member States, the explained part is mostly driven by the following three factors: economic activity, education and occupation. For education and occupation, countries generally record negative gaps, illustrating the impact of self-selection in the labour market: women who engage in the labour market tend to have a higher education level and take better-paid occupations than men. This translates into higher expected earnings for women, thus making a negative contribution to the unadjusted GPG.

An explained gap of at least 1 % (irrespective of the sign) is recorded for economic activity in all Member States except Cyprus, for education in twenty and for occupation in sixteen (see the figures highlighted in Table 2).

Among those gaps above 1 %, it is interesting to list countries whose explained part has an opposed sign compared with the majority.

For instance, for education, female employees have on average a higher profile than males. This is the opposite in Belgium and Switzerland.

For occupations, the most notable exceptions where the occupations taken by women are on average financially less rewarding than for men are Cyprus, Austria, France and the Netherlands.

As opposed to most Member States, men work on average in lower-paying economic activities in Luxembourg, the Netherlands and Romania.

Note that working time (full- or part-time) plays a significant role in explaining the unadjusted GPG in Germany (4 percentage points). This is also the case, albeit to a lesser extent, for Belgium, the Netherlands, Austria and Italy. At the other extreme, Ireland recorded a negative explained gap of − 2.1 % for this variable.

Finally, the age of the employee, the size of the enterprise and type of enterprise control may also play a role in some Member States. The part of the difference in earnings explained by age is above 1 % for Estonia, Malta, the Netherlands, Latvia and Luxembourg, meaning that the average age of male employees is higher than for women. The size of enterprise plays in the other direction: women tend to work in better-paying enterprises of larger sizes, in particular in Latvia, Romania, Hungary, Ireland, Spain and Cyprus, which translates into a negative explained gap.

([10])   In order to convert the differences in the log (earnings) into % differences in earnings, we use the following formula: women earn $\left| Exp(-E_k) - 1 \right|$ less (if E_k is positive) or more (if E_k is negative) than men, in %, where E_k is the part of the difference $(\overline{\ln y}^M - \overline{\ln y}^W)$ explained by variable k. Note that the relative gap: $\left| Exp(-E_k) - 1 \right|$, expressed in %, is close to the opposite of the explained part: $\left| E_k \right|$ when the latter is close to 0.

Concerning the impact of enterprise ownership/control, contributions to the explained gap are generally positive, with the highest values recorded in the Netherlands, Denmark, Latvia followed by Sweden, Bulgaria, Finland and Hungary. This means that women work more often in public administrations or in enterprises under public control, which generally pay less, on average, than the private sector. The notable exceptions are Luxembourg and Romania, where jobs in the public sphere are, on average, financially more rewarding that in the private sector, thus causing a negative GPG (and explained part) in favour of women.

Turning to EFTA states, we observe sizeable GPGs for education in Iceland (− 1.4 %), Norway (− 1.1 %) and, with a reverse sign, Switzerland (+ 1.3 %) where female employees have a lower average education level than men. Occupations held by female employees generally pay better, in Iceland and Norway, than those of men. On the contrary, economic activity (in Norway especially but also Switzerland) and enterprise ownership/control (in Iceland, notably) contribute to the higher average earnings of men.

Figure 3: Decomposition of the explained gender pay gap, 2018
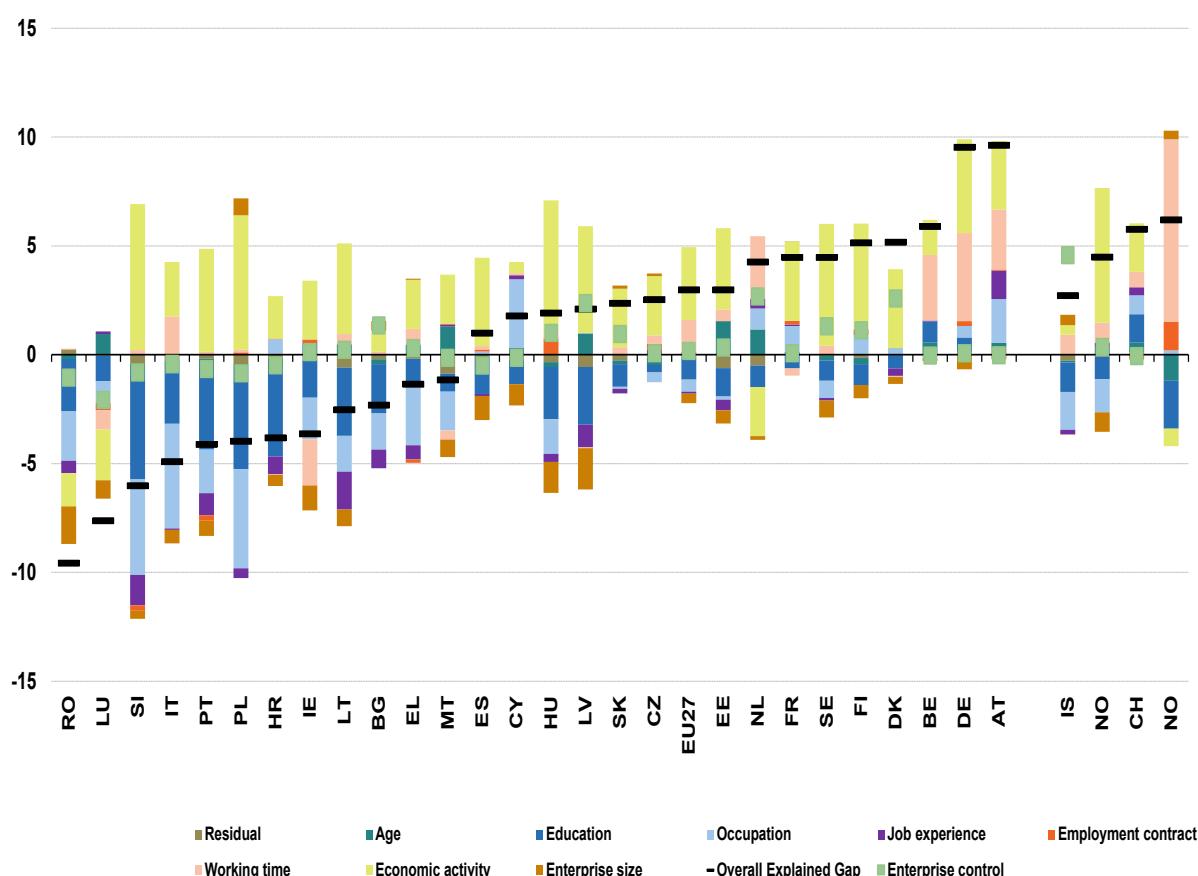
Table 2: Decomposition of the unadjusted GPG, SES2018

	Unadjusted GPG	Explained GPG												Unexplained GPG
		Overall explained gap	Residual	Personal and job characteristics						Enterprise characteristics				
				Age	Education	Occupation	Job experience	Employment contract	Working time	Economic activity	Enterprise size	Enterprise control	Geographical location	
EU27	**14,4**	**3,0**	**-0,1**	**0,0**	**-1,0**	**-0,6**	**-0,1**	**0,1**	**1,5**	**3,4**	**-0,4**	**0,2**	**0,1**	**11,4**
Belgium	5,8	5,9	0,0	0,5	1,0	-0,2	0,0	0,0	3,0	1,6	-0,1	0,0	0,0	-0,1
Bulgaria	13,9	-2,3	-0,2	-0,2	-2,3	-1,7	-0,9	0,0	0,1	1,0	0,4	1,3	0,0	16,2
Czech Republic	20,1	2,5	-0,2	-0,3	-0,4	-0,4	0,2	0,3	0,4	2,7	0,1	0,1	0,0	17,6
Denmark	14,6	5,2	0,0	0,0	-0,6	0,3	-0,3	0,0	-0,1	3,6	-0,3	2,6	0,0	9,4
Germany	20,1	9,5	0,1	-0,1	0,7	0,5	0,0	0,2	4,0	4,3	-0,6	0,1	0,2	10,6
Estonia	21,8	3,0	-0,6	1,5	-1,3	-0,1	-0,5	0,0	0,5	3,7	-0,6	0,3	0,0	18,8
Ireland	11,3	-3,6	-0,2	0,4	-1,7	-1,9	0,1	0,2	-2,1	2,7	-1,1	0,1	0,0	14,9
Greece	10,4	-1,3	-0,2	0,5	-1,2	-2,8	-0,6	-0,2	0,7	2,3	0,0	0,3	-0,2	11,7
Spain	11,9	1,0	-0,1	0,0	-1,7	0,2	-0,1	0,1	0,2	4,0	-1,1	-0,5	0,0	10,9
France	16,7	4,5	0,0	0,1	-0,6	1,2	0,1	0,2	-0,3	3,6	0,0	0,1	0,2	12,2
Croatia	11,4	-3,8	-0,2	-0,6	-3,9	0,7	-0,8	0,0	0,0	2,0	-0,5	-0,5	0,0	15,2
Italy	5,5	-4,9	-0,3	-0,6	-2,3	-4,8	-0,1	0,0	1,8	2,5	-0,6	-0,4	-0,1	10,4
Cyprus	10,4	1,8	-0,3	0,3	-1,1	3,2	0,2	0,0	0,1	0,5	-1,0	-0,1	0,0	8,6
Latvia	19,6	2,1	-0,6	1,0	-2,6	0,0	-1,0	0,0	0,0	4,9	-1,9	2,4	0,0	17,5
Lithuania	14,0	-2,5	-0,6	0,5	-3,1	-1,6	-1,7	0,0	0,5	4,2	-0,8	0,2	0,0	16,5
Luxembourg	1,4	-7,6	0,0	1,0	-1,2	-1,0	0,1	-0,3	-0,9	-2,3	-0,9	-2,1	0,0	9,0
Hungary	14,2	1,9	-0,3	-0,2	-2,4	-1,6	-0,4	0,7	0,3	**6,0**	-1,4	1,0	0,2	12,3
Malta	13,0	-1,2	-0,9	1,3	-0,8	-1,8	0,1	0,0	-0,4	2,3	-0,8	-0,1	0,0	14,2
Netherlands	14,7	4,3	-0,5	1,2	-1,0	1,0	0,4	0,0	2,9	-2,3	-0,2	2,7	0,0	10,4
Austria	20,4	9,6	0,3	0,2	-0,1	2,0	1,3	0,0	2,8	3,1	-0,1	0,0	0,0	10,8
Poland	8,5	-4,0	-0,4	-0,6	-4,3	-4,6	-0,4	0,1	0,1	**6,2**	0,8	-0,8	-0,1	12,5
Portugal	8,9	-4,1	-0,2	-0,6	-3,6	-2,0	-1,0	-0,3	0,1	4,7	-0,7	-0,7	0,0	13,0
Romania	2,2	-9,6	0,2	-0,2	-2,4	-2,3	-0,6	0,0	0,0	-1,5	-1,7	-1,0	-0,1	11,8
Slovenia	9,3	-6,0	-0,4	-0,4	-4,9	-4,4	-1,4	-0,3	0,2	**6,7**	-0,4	-0,8	0,0	15,3
Slovakia	19,8	2,4	-0,3	-0,2	-1,0	-0,1	-0,2	0,1	0,3	2,7	0,1	0,9	0,0	17,4
Finland	16,9	5,1	-0,1	-0,3	-1,0	0,9	0,0	0,3	0,0	4,8	-0,6	1,1	0,0	11,8
Sweden	12,1	4,5	0,0	-0,2	-0,9	-0,8	-0,1	0,1	0,4	**5,6**	-0,8	1,3	0,0	7,6
Iceland	13,8	2,7	-0,3	-0,1	-1,4	-1,7	-0,2	0,0	0,9	0,4	0,5	4,6	0,0	11,1
Norway	13,2	4,5	-0,1	0,3	-1,1	-1,5	0,2	0,0	0,9	**6,2**	-0,9	0,4	0,0	8,7
Switzerland	18,3	5,8	0,1	0,4	1,3	0,9	0,4	0,0	0,7	2,2	-0,2	-0,1	0,0	12,5

Note: The figures for the explanatory factor 'age' are the sums of the results for the variables 'age' and 'age²'; the figures of the explanatory factor 'job experience' are the sums of the results for the variables 'job experience' and 'job experience squared'; for Romania, employees whose weights belong to the fifth highest percentile are excluded. experience' and 'job experience²'; for Romania, employees whose weights belong to the fifth highest percentile are excluded.

Gender pay gaps in the European Union _____

3.3. Gender differences in financial returns

In this part of the analysis, we analyse the unexplained part (denoted *U1*) of the difference in the log (earnings) obtained from the Mincer equation, which is written as follows:

$$U1 = \sum_{k=1}^{K} \overline{X}_k^M \left(\widehat{\beta}_k^M - \widehat{\beta}_k^W \right)$$

Where k=1 to k=K refers to the corresponding variables covering the observed characteristics

Methodological warning

It is tempting to interpret the difference in financial returns as measuring possible discrimination between men and women in the labour market ('unequal pay for equal work'). However, we should refrain from this interpretation for three main reasons.

First, SES data do not cover all explanatory variables of gross earnings. Should these variables be included in the model (e.g. household composition, care responsibilities for children or the elderly), the coefficients of the regression for men, women or both could significantly change.

Second, differences in coefficients may conceal segregations at a more detailed level. Imagine men and women being concentrated ('segregated') in different subdivisions of NACE sections or detailed positions of the ISCO classification of occupations. If women worked more often in the lower-paid part of those subdivisions or detailed positions, this would show up in the coefficients estimated at aggregate levels ('composition effect'). In those cases, differences in coefficients would measure further segregation effects, on top of those described in Chapter 3.2, rather than discrimination as such.

Third, for categorical variables, the comparisons in the coefficients of the regression are always done with a category of reference and should be interpreted as relative gaps in that category, for example, ISCO 23 (teaching professionals) for occupations. For instance, a difference between the financial returns of men and women for occupation ISCO 12 (corporate managers) should be interpreted as the difference between (1) the earnings *gap* between male managers and male teachers and (2) the earnings *gap* between female managers and female teachers.

The $\widehat{\beta_k}$ coefficients are displayed in Tables A.2 and A.4 of Appendix 1 for men and women, respectively. The corresponding results of the Fisher significance tests are available in Tables A.3 and A.5.

Higher financial returns for men

To detect whether the financial returns are significantly higher for men, we computed the differences between the upper bound (for women) and the lower bound (for men) of the confidence intervals at 10 %. The results are displayed in Table A.6. Cells with values that are significantly negative are highlighted.

Examining the rows, we see that financial returns are significantly higher for men than for women in a majority of countries as regards age, and in several countries for experience. This could point to the impact of career breaks, which are more frequent among women than among men.

As regards education, significantly negative values are recorded for all ISCED levels in Belgium, Germany and Slovakia (plus Norway). In those countries, the supplement financial returns compared with the reference category (lower secondary education) are significantly lower for women than for men. Significantly negative values are recorded for two ISCED levels in Spain, Hungary, Austria and Poland. This is the case for one ISCED level in Czechia, Estonia, Greece and Finland.

It is worth noting that the financial penalties for working part-time rather than full-time are not larger for women than for men, in any EU Member State or EFTA state. Likewise, working under a temporary contract does not penalise women more than men, except in Sweden.

In some countries, working in the private sector rather than in publicly owned companies is comparatively less advantageous for women than for men. This is the case in Greece, Spain, Italy, the Netherlands and Romania (plus Norway). The reverse situation is observed in Sweden.

In Czechia, Germany and Hungary, working in larger firms is also less advantageous for women than for men (for two size classes compared with enterprises with 50–249 employees). This is also the case, for one size class, as regards Spain, Italy, Poland, Romania, Slovakia and Finland (plus Norway).

Turning to the individual countries shown in columns, we observe that Germany, Hungary, Poland, Romania and Finland exhibit lower financial returns for women than for men across almost all NACE sections, compared with 'education' (NACE section P), considered as the reference category.

The situation is more mixed as regards occupations: only Croatia, Hungary and Poland record lower returns for women in a large number of ISCO categories compared with the baseline – ISCO 23 (teaching professionals). In Denmark, France and Poland (plus Norway), this is observed in most managing occupations (ISCO 1), and in two of them as regards Czechia, Germany, Italy, Hungary and the Netherlands.

Higher financial returns for women

To detect if the financial returns are significantly higher for women, we computed the differences between the upper bound (for men) and the lower bound (for women) of the confidence intervals at 10 %. The results are displayed in Table A.7.

Looking at the rows, many countries record lower financial returns for men than for women as regards age[2] or job experience[2]. This is expected, as women on average receive higher returns at the end of their careers (and lower returns at the beginning) compared with men (see the publication on Wage determinants in the EU).

Working part-time is generally more penalising for men than for women, as was observed in Bulgaria, Czechia, Denmark, Germany, Estonia, Greece, Italy, Lithuania, Hungary, Austria, Portugal, Slovenia and Slovakia (plus Norway and Switzerland).

This is also the case for working under a temporary contract, as regards Denmark, Germany, Spain, Slovenia and Finland.

In some countries, working in the private sector rather than in publicly owned companies is comparatively less advantageous for men than for women. This is the case in Bulgaria, Lithuania and Hungary.

In several Member States, namely Czechia, Germany, Estonia, Latvia, Lithuania, Hungary, Austria, Poland and Slovakia, men are financially more penalised than women for working in small enterprises of 10–49 employees compared with enterprises from 50–249 employees.

Turning to the individual countries shown in columns, we observe that Italy exhibits lower financial returns for men than for women across most NACE sections, compared with 'education' (NACE section P), considered as the reference category.

As regards occupations, we observe that Romania and Finland record lower returns for men than for women in a large number of ISCO categories compared with the baseline – ISCO 23 (teaching professionals). This is notably the case for most managing positions in Romania.

4 Other segregation effects

The decomposition of the unadjusted GPG does not capture all of the segregation effects between men and women in the labour market. In particular, women work, on average, fewer hours per month than men in the labour market do. Moreover, a lower proportion of women than men participate in the labour market. This is shown by the lower employment rates for women throughout the Member States. Figure 4 shows all the possible factors that may influence the expected earnings of women and men of working age (15–64 years old).

Figure 4: Gender segregation effects

Lower employment rate of women

Lower number of hours worked   **Gender segregation effects**

Sectoral and occupational segregation

                                                    Unadjusted gender pay gap

Unequal pay for equal work
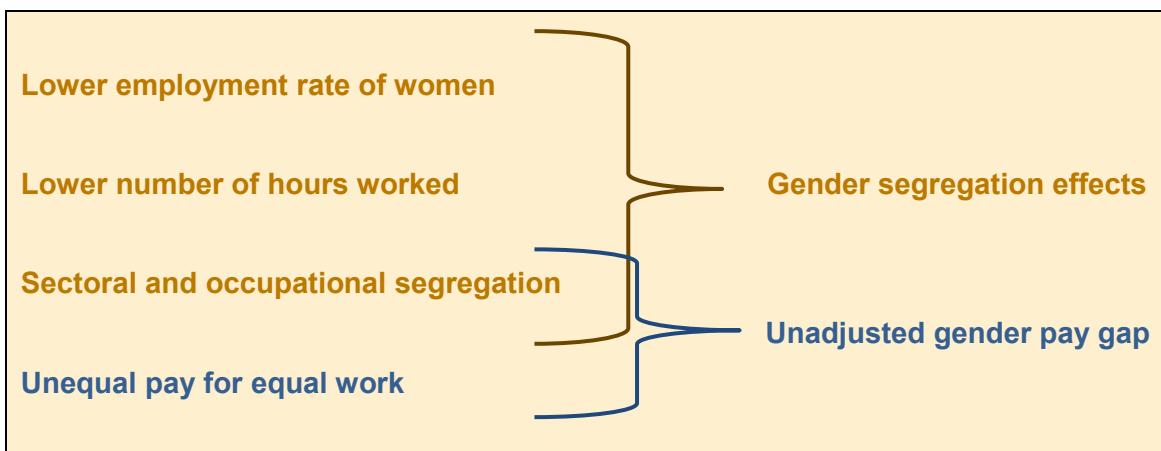
4.1. Sectoral and occupational segregation

As detailed in Chapter 3.1 and Chapter 3.2, a part of the differences in the average earnings of male and female employees can be explained by differences in the average characteristics of male and female employees. Calculating the adjusted GPG is a way to filter out sectoral and occupational segregation effects, as (partially) measured through SES variables, from the unadjusted GPG.

As shown in Figure 5, the unadjusted GPG (blue markers) shows no correlation with the development level of a country as measured by the real gross national income per head, in purchasing power parities (EU-27 = 100). After adjusting the GPG for different characteristics of men and women in the labour market (red markers), the coefficient of determination rises to 25 % of the total variance. This shows that the adjusted GPG is better aligned with other indicators of socioeconomic development, hence more appropriate for comparisons between countries than unadjusted figures.

Figure 5: Adjusted and unadjusted gender pay gap against real gross national income per head, 2018
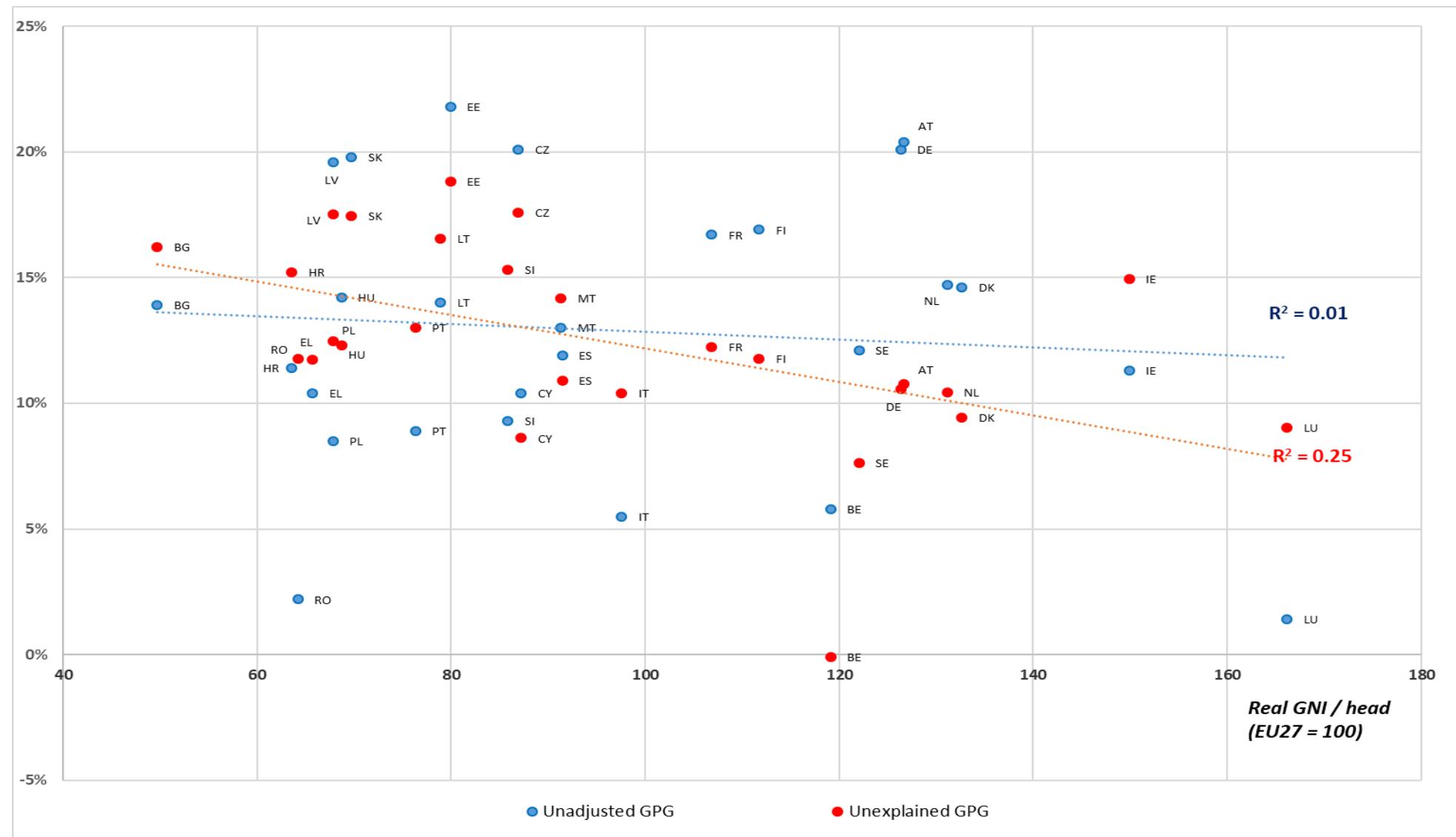
Source: SES 2018 data, national accounts (data set: [nama_10_pp]).

4.2. Other segregation effects

Table 3 presents Eurostat's data on the average hourly earnings, number of hours paid per month and the employment rate of men and women and the resulting gaps. In 2018, women in the EU were paid, on average, for 12 % fewer hours per month than men were. The gap between the number of hours paid to men and the number of hours paid to women varies substantially across EU Member States. At one end of the scale, in the Netherlands, women were paid for 27 % fewer hours per month than men were. At the other end of the scale, this difference was only 1 % in Bulgaria and Romania, and 2 % in Croatia.

In 2018, at the EU level, the employment rate of men was 15 percentage points higher than that of women. Across the Member States, the difference between the employment rate of men and women varied from 2 percentage points in Lithuania to 30 percentage points in Greece.

Table 3: Gender gaps in hourly earnings, hours paid and employment rate, 2018

	Average hourly earnings (EUR)		Unadjusted gender pay gap	Average number of hours paid per month		Gender hours gap	Employment rate for age group 15-64 (%)		Gender employment gap
	Men	Women		Men	Women		Men	Women	
EU-27 [1]	16,6	14,1	15%	162	142	12%	73,1	62,3	15%
Belgium	20,8	19,6	6%	163	143	12%	68,2	60,7	11%
Bulgaria	3,6	3,1	14%	179	177	1%	71,5	63,9	11%
Czechia	7,8	6,3	20%	171	165	4%	81,8	67,6	17%
Denmark	32,0	27,3	15%	131	124	5%	76,9	71,3	7%
Germany	21,7	17,3	20%	153	123	20%	79,7	72,1	10%
Estonia	8,5	6,6	22%	177	167	6%	78,1	71,4	9%
Ireland	24,3	21,6	11%	158	134	15%	74,1	63,3	15%
Greece	9,2	8,2	10%	159	151	5%	64,7	45,3	30%
Spain	12,9	11,4	12%	161	146	9%	67,9	56,9	16%
France	19,7	16,4	17%	154	142	8%	68,9	61,9	10%
Croatia	6,7	6,0	11%	184	181	2%	65,4	55,9	15%
Italy	15,9	15,1	5%	175	144	18%	67,6	49,5	27%
Cyprus	11,9	10,6	10%	174	166	5%	73,3	64,2	12%
Latvia	7,0	5,6	20%	164	159	3%	73,6	70,1	5%
Lithuania	5,7	4,9	14%	174	165	5%	73,3	71,6	2%
Luxembourg [2]	25,3	24,9	1%	182	158	13%	70,6	63,4	10%
Hungary	5,9	5,0	14%	179	172	4%	76,3	62,3	18%
Malta	12,6	11,0	13%	169	156	8%	81,5	61,5	25%
Netherlands	19,8	16,9	15%	146	107	27%	81,6	72,8	11%
Austria	19,0	15,2	20%	167	132	21%	77,4	68,6	11%
Poland	6,5	6,0	9%	180	166	8%	74,0	60,8	18%
Portugal	8,1	7,4	9%	169	160	5%	72,7	66,9	8%
Romania	5,2	5,1	2%	184	183	1%	73,2	56,2	23%
Slovenia	10,0	9,1	9%	181	174	4%	74,5	67,5	9%
Slovakia	7,4	6,0	20%	171	166	3%	73,9	61,2	17%
Finland	22,0	18,3	17%	162	153	6%	73,5	70,6	4%
Sweden	21,5	18,9	12%	165	149	10%	78,8	75,9	4%
Iceland	28,1	24,1	14%	162	137	15%	87,5	82,5	6%
Norway	31,9	27,7	13%	151	131	13%	76,9	72,6	6%
Switzerland	38,9	31,8	18%	167	130	22%	84,5	75,7	10%

[1] The unadjusted gender pay gap slightly differs from the official number (14.4 %) the latter being calculated as the average of the national gender pay gaps weighted by the respective number of employees.

[2] The cross-border workers account for over 40 % of the workforce in Luxembourg. They are covered by the Structure of Earnings Survey (the source of data on the average hourly earnings and the average monthly hours paid) but not by the Labour Force Survey (the source of data on the employment rate) which are conducted in Luxembourg.

Source: Eurostat. Structure or Earnings Survey 2018, Labour Force Survey 2018.

4.3. The 'gender overall earnings gap'

To give a complete picture of the gender earnings gap, Eurostat has developed a synthetic indicator, the 'gender overall earnings gap', which measures the impact of three combined factors on the difference in the average earnings of all women of working age – whether employed or not employed – compared to men. Those factors are: the average hourly earnings, the monthly average of the number of hours paid and the employment rate for men and women.

The gender overall earnings gap (GOEG) is calculated as follows:

$$GOEG = \frac{(E_m \times H_m \times ER_m) - (E_w \times H_w \times ER_w)}{(E_m \times H_m \times ER_m)} \times 100$$

with the following notations:

E_m: average hourly earnings of men (*source:* SES),

H_m: average monthly hours paid to men (*source:* SES),

ER_m: employment rate of men (aged 15–64) (*source:* Labour Force Survey),

E_w: average hourly earnings of women (*source:* SES),

H_w: average monthly hours paid to women (*source:* SES),

ER_w: employment rate of women (aged 15–64) (*source:* Labour Force Survey).

The results are published in a *Statistics Explained* article on gender statistics (Eurostat, 2021a), provided in Table 4 and displayed in Figure 5.

In 2018, the gender overall earnings gap was 37 % in the EU-27. This means that the average earnings of all women of working age, whether they were employed or not, were 37 % lower than the corresponding average earnings of men.

Across Member States, the gender overall earnings gap varied significantly, from 20.4 % in Lithuania to 44.2 % in both Austria and the Netherlands. Countries that recorded a gender overall earnings gap lower than 30 % were Lithuania (20 %), Portugal (21 %), Slovenia (21 %), Luxembourg (23 %), Sweden (23 %), Bulgaria (24 %), Finland (25 %), Denmark (25 %), Cyprus (25 %), Romania (25 %), Croatia (25 %), Latvia (26 %) and Belgium (26 %). Countries that recorded a gender overall earnings gap higher than 40 % were Greece (40 %), Germany (42 %), Italy (43 %), Austria and the Netherlands (both 44 %).

Table 4: Gender overall earnings gap, 2018

BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV
26%	24%	36%	25%	42%	33%	36%	40%	33%	31%	26%	43%	25%	26%
LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	EU27
20%	23%	33%	39%	44%	44%	31%	21%	25%	21%	36%	25%	23%	37%
IS	NO	CH											
31%	29%	43%											

Source: Eurostat – SES 2018, Labour Force Survey 2018.

Figure 6: Gender overall earnings gap, 2018
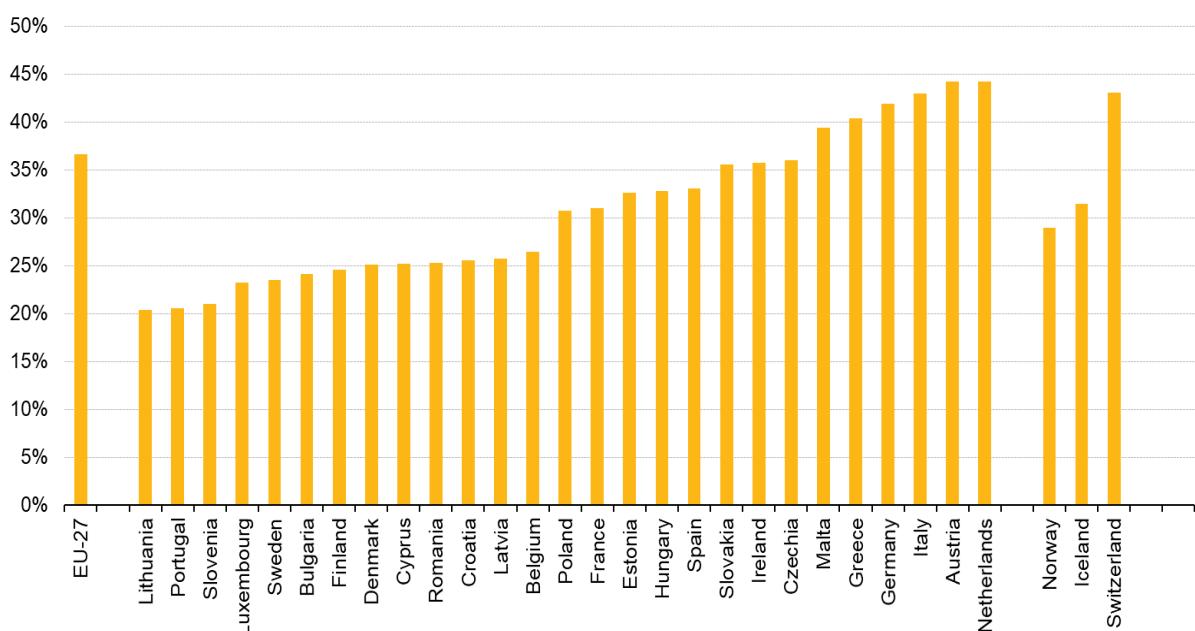
Source: Eurostat (online data code: teqges01)

5 | **Conclusions**

Given their importance for public policies, official statistics on gender equality attract much attention from the media and from the public. The unadjusted GPG in particular, owing to its simple definition, is a prominent indicator in this respect.

It is sometimes viewed as a tool to measure possible gender discrimination on the labour market. However, 'unequal pay for equal work, among male and female workers' is just one of the possible causes of the unadjusted GPG.

The other possible drivers of the GPG are the different characteristics of male and female employees and possible gender gaps in financial returns for the same characteristics. In countries with a lower employment rate of women, the former component may partly come from segregation effects, including 'self-selection': women who decide to engage in the labour market are those with higher education levels or skills levels. In such cases, the unadjusted GPG may be null or even turn negative just because the subpopulations of male and female employees have different profiles.

The unadjusted GPG is therefore an equivocal (non-bijective) indicator of gender inequalities in the labour market, as illustrated in Figure 6.

Figure 7: The gender pay gap as an equivocal indicator of gender equality
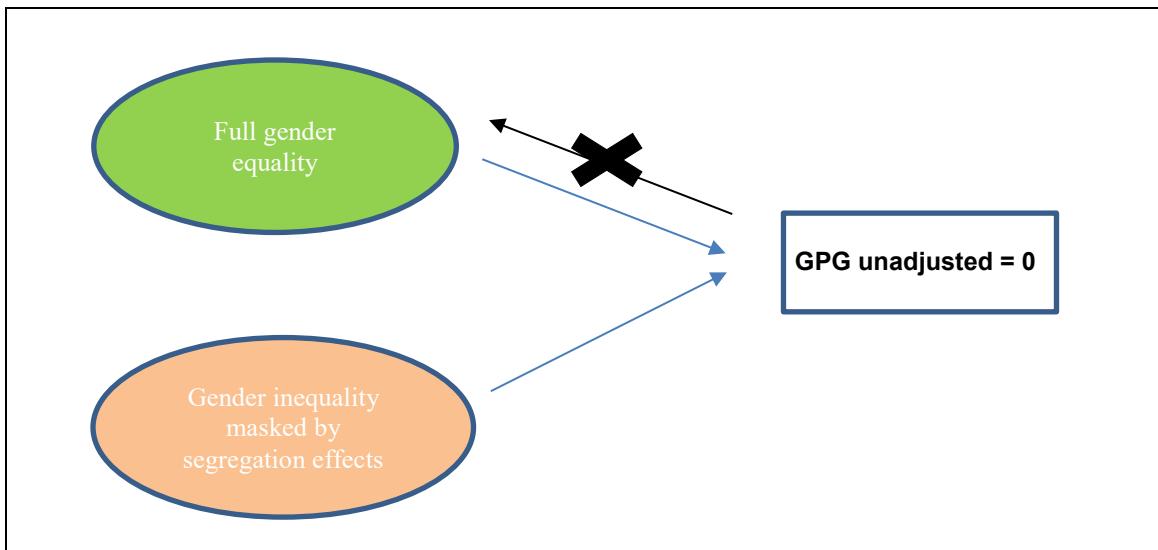
There are, therefore, clear policy and statistical reasons to decompose the unadjusted GPG into the explained and unexplained parts. By identifying and interpreting the causes of the GPG, policy actions in favour of gender equality can be better targeted.

This was the aim of this study that used SES 2018 data to estimate the part of the gap caused by differences in the average characteristics of male and female employees and the unexplained GPG that comes from different financial returns for the same characteristics.

The explained part of the decomposition should not be understood in a normative way or as a natural GPG. It measures the difference in the hourly earnings caused by the different characteristics of male and female employees, be they caused by gender stereotypes, gender-biased preferences, fields of education or other reasons. This component may also include some discrimination elements if there are barriers to entering specific economic activities or occupations.

It is also tempting to interpret the unexplained component as a measurement of a possible discrimination through 'unequal pay for equal work' reflected in different financial returns for the same characteristics. This is not recommended though, as important variables, such as total work experience, are not collected in the SES. Including such additional variables in the regression analysis may change the results.

Moreover, the variables used in the regression for economic activity, education and occupation are based on broad categories that may conceal segregation effects at a more detailed level. Measuring discrimination as such is not possible with statistics, which by definition are collected for a large number of cases and cannot capture all the characteristics of a job. These limitations should be borne in mind when interpreting the unexplained GPG, in particular for those countries with a low coefficient of determination.

In the first part of this study, we analysed which part of the unadjusted GPG could be explained by differences in the average characteristics (economic sectors, occupations, management responsibilities, etc.) of male and female employees on the labour market.

For some countries, the explained GPG constitutes more than half of the unadjusted GPG. At the other extreme, some record a negative explained GPG, indicating that female employees present average characteristics on the labour market that are more remunerative than those of men. This is the case in particular for countries where women with lower education and skills refrain from engaging in the labour market, especially when there are few job opportunities ('self-selection' effect).

When the explained GPG is negative, this results in the unexplained GPG being higher than the unadjusted GPG. Consequently, the ranking of countries based on the size of the unexplained GPG differs greatly from the one based on the size of the unadjusted GPG. This confirms that the unadjusted GPG alone is not suitable for ranking countries according to possible gender inequalities in the labour market.

The decomposition also singled out the main factors behind the explained GPG, in particular economic activity, occupation and education. However, these factors have different explanatory effects.

As regards education, the explained GPG is negative in the vast majority of Member States. This means that employed women have, on average, a higher level of education than men do in most EU labour markets. On the contrary, the explained GPG for economic activity is positive for most Member States, as men tend to be employed in better-paid economic activities than women (sectoral segregation).

A more mixed picture can be observed for occupation: in the Member States with a positive gap, men work on average in better-paid occupations than women, and vice versa for those with a negative gap. Occupational gender segregation thus has a more uneven effect across Member States than sectoral gender segregation.

In the second part, we turned to the regression coefficients and analysed whether women and men had different financial returns for the same characteristics. We could observe in particular that working part-time or under temporary contracts was generally more penalising for men than for women. The average female earnings are reduced due to the higher proportions of women working part-time or under temporary contracts, not because of higher financial penalties. The analysis of financial returns also confirmed, indirectly through the coefficients for age and age[2], the impact of career breaks on the average earnings of women.

Note that the decomposition of the unadjusted GPG does not capture all segregation effects between men and women in the labour market. In particular, women work on average fewer hours per month than men do. This is not captured by the unadjusted GPG, which is calculated on an hourly basis. Moreover, a lower proportion of women than men participate in the labour market.

In the third and last part of this study, we computed a synthetic indicator that measures the combined effects of all those segregation effects, namely gender differences in hourly earnings (i.e. the unadjusted GPG), monthly hours paid and employment rates. This was done through the gender overall earnings gap, which estimates the difference between the expected earnings of all women and all men of working age.

The methodology used in this study was discussed at various meetings of the Working Group on Labour Market Statistics and of the European Directors of Social Statistics. A first edition of this publication was published in 2018. Eurostat hopes that this second edition, based on an improved methodology and updated data, will provide users of official statistics with further insights into GPG indicators.

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Appendix 1: Statistical tests

Table A.1: Coefficient of determination (R-squared)

Country	R-squared	
	Model for men	**Model for women**
Belgium	86%	85%
Bulgaria	52%	52%
Czech Republic	54%	54%
Denmark	58%	55%
Germany	67%	64%
Estonia	42%	53%
Ireland	57%	59%
Greece	56%	62%
Spain	52%	56%
France	49%	45%
Croatia	46%	57%
Italy	56%	65%
Cyprus	71%	78%
Latvia	39%	47%
Lithuania	45%	53%
Luxembourg	69%	72%
Hungary	63%	69%
Malta	43%	46%
Netherlands	68%	71%
Austria	60%	59%
Poland	52%	61%
Portugal	64%	74%
Romania	54%	60%
Slovenia	53%	62%
Slovakia	46%	48%
Finland	60%	61%
Sweden	55%	55%
Iceland	72%	70%
Norway	55%	51%
Switzerland	56%	48%

Table A.2: Financial returns for men

Country	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Constant	2.68	1.43	4.59	4.34	2.01	1.69	2.16	1.30	1.88	2.35	2.92	2.55	1.18	1.35	1.19	2.64	6.70	1.78	1.46	2.39	3.00	1.67	2.77	1.74	1.06	2.38	4.59	7.16	4.91	2.83
Age	0.02	0.01	0.02	0.04	0.02	0.02	0.04	0.03	0.02	0.02	0.02	0.01	0.03	0.02	0.01	0.03	0.01	0.03	0.06	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.03	0.02	0.03
Age2	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Job_experience	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.00	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Job_experience2	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	.	.	.	-0.00	.	.	.	-0.00	.	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Education-ISCED_0_1_2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Education-ISCED_3_4	0.05	0.03	0.07	0.09	0.07	0.07	0.03	0.05	0.10	0.07	0.10	0.07	0.02	0.03	0.09	0.07	0.09	0.05	0.13	0.07	0.04	0.10	0.02	0.10	0.22	0.03	0.04	0.06	0.06	0.10
Education-ISCED_5_6	0.12	0.15	0.16	0.13	0.16	0.11	0.15	0.22	0.15	0.15	0.29	0.10	0.15	0.17	0.23	0.15	0.29	0.10	0.26	0.16	0.17	0.34	0.22	0.26	0.28	0.07	0.11	0.13	0.12	0.29
Education-ISCED_7_8	0.31	0.23	0.29	0.26	0.32	0.21	0.29	0.49	0.31	0.28	0.50	0.22	0.28	0.28	0.36	0.23	0.46	0.19	0.45	0.33	0.29	0.46	0.37	0.46	0.46	0.22	0.39	0.25	0.25	0.44
Working_time-Full_time	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Working_time-Part_time	-0.13	-0.11	-0.11	0.02	-0.12	-0.07	0.11	-0.15	-0.01	0.02	0.01	-0.09	-0.11	0.02	-0.07	0.03	-0.09	0.06	-0.07	-0.08	-0.03	-0.03	-0.06	-0.10	-0.07	-0.00	-0.02	-0.06	-0.05	-0.02
Economic_activity_section-NACE_B	0.03	0.37	0.21	0.26	0.31	0.43	0.20	0.24	0.30	0.12	0.20	0.23	0.17	0.45	0.50	-0.15	0.38	0.08	0.08	0.25	0.47	0.26	0.31	0.56	0.20	0.26	0.37	.	0.52	0.02
Economic_activity_section-NACE_C	0.10	-0.00	0.21	0.01	0.31	0.26	0.18	0.01	0.17	0.08	0.12	0.07	-0.13	0.21	0.35	-0.19	0.30	0.23	-0.05	0.18	0.22	0.14	0.27	0.32	0.26	0.18	0.15	0.07	0.16	0.01
Economic_activity_section-NACE_D	0.16	0.30	0.31	0.14	0.43	0.26	0.35	0.13	0.43	0.11	0.30	0.17	-0.08	0.21	0.26	-0.05	0.51	0.70	0.02	0.22	0.33	0.61	0.32	0.41	0.35	0.32	0.22	0.20	0.27	0.07
Economic_activity_section-NACE_E	0.12	-0.06	0.13	0.06	0.26	0.25	0.12	0.12	0.16	0.04	0.12	0.04	0.05	0.25	0.26	-0.11	0.22	0.13	-0.03	0.08	0.21	0.04	0.15	0.24	0.12	0.19	0.17	0.06	0.14	0.02
Economic_activity_section-NACE_F	0.02	-0.03	0.16	0.06	0.28	0.21	0.20	0.04	0.17	0.14	0.12	0.08	-0.03	0.29	0.28	-0.25	0.22	0.06	0.01	0.22	0.21	0.10	0.23	0.27	0.18	0.21	0.22	0.13	0.22	0.05
Economic_activity_section-NACE_G	0.07	0.09	0.22	-0.04	0.20	0.21	0.09	0.00	0.07	0.02	0.16	0.03	-0.13	0.26	0.28	-0.23	0.24	0.18	-0.15	0.11	0.21	0.13	0.24	0.32	0.25	0.21	0.16	0.10	0.14	-0.02
Economic_activity_section-NACE_H	0.08	-0.02	0.15	0.09	0.16	0.21	0.09	0.22	0.17	0.07	0.17	0.01	-0.01	0.24	0.19	-0.14	0.20	0.36	-0.04	0.07	0.16	0.23	0.18	0.25	0.14	0.27	0.15	0.13	0.21	-0.01
Economic_activity_section-NACE_I	0.03	-0.07	-0.02	-0.04	0.11	0.12	-0.05	-0.05	0.09	0.02	0.21	-0.02	-0.24	0.11	0.23	-0.28	0.16	0.03	-0.24	-0.06	0.14	0.08	0.16	0.18	0.10	0.16	0.11	0.06	0.02	-0.17
Economic_activity_section-NACE_J	0.07	0.31	0.35	0.03	0.32	0.34	0.28	0.07	0.13	0.05	0.24	0.04	0.01	0.48	0.53	-0.11	0.32	0.30	-0.05	0.18	0.40	0.24	0.44	0.35	0.37	0.20	0.19	0.15	0.26	0.09
Economic_activity_section-NACE_K	0.14	0.09	0.33	0.09	0.40	0.46	0.30	0.18	0.25	0.12	0.26	0.28	0.03	0.51	0.58	0.03	0.41	0.36	0.07	0.24	0.32	0.50	0.37	0.35	0.37	0.29	0.32	0.48	0.33	0.24
Economic_activity_section-NACE_L	0.09	0.03	0.21	-0.01	0.26	0.21	0.18	0.13	0.09	-0.03	0.23	0.00	-0.19	0.25	0.29	-0.13	0.26	0.27	0.01	0.17	0.19	0.19	0.23	0.29	0.20	0.13	0.15	.	0.24	0.08
Economic_activity_section-NACE_M	0.13	0.17	0.28	0.01	0.30	0.28	0.19	0.05	0.06	0.05	0.22	0.07	0.01	0.37	0.43	-0.14	0.29	0.33	-0.04	0.16	0.29	0.19	0.36	0.30	0.31	0.16	0.18	.	0.21	0.08
Economic_activity_section-NACE_N	0.06	-0.07	-0.03	-0.01	0.11	0.17	0.01	-0.17	-0.01	0.02	0.06	-0.09	-0.17	0.22	0.23	-0.18	0.22	0.13	-0.13	0.12	0.05	0.08	0.17	0.20	0.12	0.08	0.06	.	0.10	-0.02
Economic_activity_section-NACE_O	.	-0.21	0.11	-0.01	-0.07	0.19	0.04	.	0.05	-0.02	0.08	-0.02	-0.04	0.15	0.19	0.15	-0.02	0.05	0.01	.	0.04	.	0.38	0.17	0.20	0.13	0.03	0.15	0.06	0.13
Economic_activity_section-NACE_P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Economic_activity_section-NACE_Q	-0.07	0.04	0.07	-0.11	0.16	0.16	0.09	-0.16	-0.02	-0.11	0.05	-0.08	-0.12	0.07	0.17	-0.16	0.09	0.12	0.06	0.02	0.02	-0.05	0.33	0.08	0.14	0.06	0.01	0.17	0.05	-0.06
Economic_activity_section-NACE_R	-0.13	-0.04	0.09	-0.12	0.14	0.05	0.11	-0.01	0.09	0.05	0.13	0.12	0.11	0.12	0.09	-0.15	0.15	0.38	-0.15	0.02	0.03	0.20	0.18	0.16	0.13	0.08	0.06	.	0.04	-0.05
Economic_activity_section-NACE_S	0.05	-0.25	-0.02	-0.06	0.18	0.04	0.10	-0.16	0.01	-0.10	0.15	-0.09	-0.11	0.20	0.18	-0.07	0.10	0.15	-0.12	0.00	0.16	0.10	0.04	0.15	-0.23	0.03	0.05	.	0.04	-0.05
Employment_contract-Indefinite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Employment_contract-Temporary	0.01	0.00	-0.07	-0.01	-0.08	-0.01	-0.03	0.07	-0.06	-0.07	-0.09	-0.05	-0.00	-0.01	-0.02	-0.17	-0.22	-0.02	-0.08	-0.04	-0.10	-0.04	0.01	-0.10	-0.04	-0.07	-0.01	-0.08	.	-0.03
Enterprise_control-Private	-0.01	0.10	0.01	0.10	0.01	0.02	0.01	0.04	-0.07	0.01	-0.04	-0.02	-0.03	0.14	0.01	-0.20	0.06	-0.04	0.11	-0.04	-0.04	-0.05	-0.09	-0.04	0.06	0.05	0.05	0.17	0.01	-0.02
Enterprise_control-Public	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enterprise_size-E10_49	-0.01	-0.15	-0.11	-0.06	-0.08	-0.13	-0.09	-0.10	-0.07	0.00	-0.09	-0.06	-0.09	-0.21	-0.21	-0.02	-0.11	-0.09	-0.02	-0.05	-0.18	-0.08	-0.22	-0.02	-0.15	-0.03	-0.04	0.02	-0.05	-0.02
Enterprise_size-E50_249	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enterprise_size-E250_499	0.00	0.09	0.06	0.02	0.07	0.00	0.02	0.04	0.04	0.00	0.02	0.03	0.08	0.05	0.07	0.03	0.10	0.03	0.01	0.04	0.09	0.06	0.07	0.02	0.06	0.03	0.03	-0.00	0.03	0.02
Enterprise_size-E500_999	0.00	0.16	0.12	0.02	0.12	-0.04	0.14	0.07	0.06	-0.00	0.03	0.05	0.12	0.02	0.10	0.03	0.11	-0.02	-0.01	0.05	0.13	0.08	0.13	-0.02	0.09	0.04	0.02	-0.02	0.02	0.03
Enterprise_size-E1000	0.01	0.23	0.16	-0.00	0.20	-0.02	0.09	0.02	0.06	-0.00	-0.00	0.06	0.07	0.04	0.03	0.10	0.16	0.05	0.01	0.07	0.12	0.04	0.19	0.09	0.15	0.03	0.02	-0.03	0.03	0.03

Country	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Occupation_2digit-ISCO_11	-0.09	0.53	0.53	0.57	0.58	0.26	0.42	0.41	0.53	0.71	0.73	0.43	1.07	0.17	0.09	0.68	0.46	0.31	0.33	0.48	0.24	0.27	0.24	0.47	0.36	0.64	0.67	0.73	0.41	0.18
Occupation_2digit-ISCO_12	-0.13	0.54	0.44	0.39	0.39	0.09	0.16	0.25	0.21	0.33	0.42	0.56	0.45	0.15	0.09	0.52	0.50	0.14	0.25	0.20	-0.01	0.18	0.15	0.28	0.28	0.41	0.44	0.25	0.30	0.11
Occupation_2digit-ISCO_13	-0.19	0.39	0.30	0.28	0.28	0.03	-0.09	0.14	0.24	0.21	0.50	0.50	0.19	0.07	0.12	0.21	0.31	0.14	0.16	0.09	-0.17	0.07	0.05	0.12	0.23	0.40	0.32	0.34	0.21	0.03
Occupation_2digit-ISCO_14	-0.35	0.31	0.15	0.07	0.26	-0.12	-0.45	-0.02	0.07	0.20	0.47	0.01	0.14	0.02	0.08	0.23	0.15	0.00	0.03	0.03	-0.36	-0.03	0.05	0.14	0.13	0.47	0.10	0.08	0.05	-0.07
Occupation_2digit-ISCO_21	-0.36	0.12	0.02	0.18	0.02	-0.16	-0.35	-0.08	-0.04	0.18	0.25	-0.22	-0.28	-0.09	-0.15	-0.05	0.12	-0.12	-0.03	-0.11	-0.39	-0.23	-0.14	-0.09	-0.06	0.00	0.10	0.08	0.08	-0.13
Occupation_2digit-ISCO_22	-0.25	0.18	0.33	0.31	0.29	0.24	-0.12	-0.13	0.21	0.30	0.37	0.31	-0.20	0.31	0.12	0.48	0.23	0.15	0.07	0.20	-0.23	-0.06	0.24	0.15	0.22	0.43	0.34	0.21	0.18	0.09
Occupation_2digit-ISCO_23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupation_2digit-ISCO_24	-0.31	0.17	0.15	0.18	0.11	0.04	-0.26	-0.22	-0.01	0.25	0.25	-0.24	-0.16	0.02	-0.11	-0.04	0.18	-0.09	0.04	-0.06	-0.37	-0.23	-0.04	-0.03	0.08	0.07	0.18	0.07	0.03	-0.12
Occupation_2digit-ISCO_25	-0.30	0.57	0.13	0.17	0.01	0.07	-0.22	-0.16	-0.07	0.20	0.27	-0.31	-0.09	0.13	0.09	-0.07	0.19	-0.07	-0.00	-0.10	-0.16	-0.26	0.31	-0.03	0.05	-0.00	0.11	0.07	0.03	-0.04
Occupation_2digit-ISCO_26	-0.34	-0.07	-0.16	0.10	-0.02	-0.21	-0.22	-0.28	-0.10	0.15	0.09	0.10	-0.27	-0.23	-0.16	-0.01	0.10	-0.37	-0.03	-0.13	-0.28	-0.21	-0.13	-0.10	-0.30	-0.02	0.09	0.00	0.00	-0.09
Occupation_2digit-ISCO_31	-0.46	-0.02	-0.05	0.07	-0.10	-0.24	-0.46	-0.10	-0.15	-0.03	0.14	-0.38	-0.35	-0.10	-0.16	-0.13	-0.05	-0.22	-0.03	-0.17	-0.45	-0.42	-0.14	-0.16	-0.09	-0.14	0.02	0.24	0.02	-0.14
Occupation_2digit-ISCO_32	-0.34	-0.16	-0.01	0.08	-0.14	-0.32	-0.55	-0.32	-0.23	-0.03	0.18	-0.35	-0.48	-0.33	-0.46	0.09	-0.14	-0.13	-0.11	-0.25	-0.55	-0.40	-0.12	-0.17	-0.21	-0.16	-0.06	0.00	-0.03	-0.13
Occupation_2digit-ISCO_33	-0.44	-0.02	-0.03	0.08	-0.03	-0.22	-0.54	-0.36	-0.10	-0.04	0.21	-0.29	-0.38	-0.25	-0.30	-0.21	-0.07	-0.18	-0.04	-0.16	-0.47	-0.32	-0.27	-0.13	-0.05	-0.09	0.05	-0.05	-0.02	-0.11
Occupation_2digit-ISCO_34	-0.37	0.08	-0.19	-0.02	-0.10	-0.35	-0.64	-0.44	-0.22	-0.04	0.05	-0.30	-0.19	-0.18	-0.22	-0.22	0.07	-0.20	-0.15	-0.21	-0.55	-0.21	-0.29	-0.23	-0.24	-0.22	-0.09	-0.18	-0.06	-0.11
Occupation_2digit-ISCO_35	-0.44	-0.14	-0.05	0.02	-0.04	-0.24	-0.74	-0.31	-0.23	-0.08	0.15	-0.42	-0.40	-0.34	-0.41	-0.21	-0.06	-0.17	-0.14	-0.16	-0.46	-0.40	-0.19	-0.20	-0.18	-0.14	-0.05	-0.04	-0.07	-0.16
Occupation_2digit-ISCO_41	-0.61	-0.33	-0.18	-0.06	-0.20	-0.46	-0.78	-0.40	-0.36	-0.20	0.04	-0.53	-0.64	-0.62	-0.67	-0.26	-0.28	-0.43	-0.23	-0.29	-0.62	-0.54	-0.39	-0.33	-0.14	-0.32	-0.18	-0.17	-0.17	-0.19
Occupation_2digit-ISCO_42	-0.67	-0.20	-0.25	-0.17	-0.23	-0.39	-0.62	-0.49	-0.36	-0.26	0.02	-0.51	-0.60	-0.38	-0.46	-0.28	-0.17	-0.37	-0.21	-0.29	-0.58	-0.65	-0.36	-0.29	-0.29	-0.36	-0.24	-0.25	-0.22	-0.31
Occupation_2digit-ISCO_43	-0.53	-0.22	-0.17	-0.13	-0.30	-0.43	-0.62	-0.51	-0.28	-0.24	-0.05	-0.52	-0.55	-0.34	-0.28	-0.32	-0.19	-0.36	-0.17	-0.32	-0.63	-0.65	-0.31	-0.37	-0.24	-0.29	-0.18	-0.14	-0.20	-0.32
Occupation_2digit-ISCO_44	-0.72	-0.28	-0.34	-0.13	-0.36	-0.54	-0.67	-0.35	-0.45	-0.23	0.01	-0.65	-0.72	-0.53	-0.53	-0.26	-0.13	-0.47	-0.40	-0.49	-0.73	-0.61	-0.67	-0.47	-0.43	-0.49	-0.25	-0.49	-0.37	-0.42
Occupation_2digit-ISCO_51	-0.70	-0.40	-0.27	-0.13	-0.32	-0.51	-0.70	-0.44	-0.34	-0.20	-0.02	-0.55	-0.50	-0.41	-0.29	-0.30	-0.26	-0.34	-0.23	-0.40	-0.68	-0.61	-0.46	-0.37	-0.25	-0.40	-0.17	-0.23	-0.20	-0.30
Occupation_2digit-ISCO_52	-0.77	-0.48	-0.30	-0.24	-0.28	-0.64	-0.81	-0.44	-0.41	-0.22	-0.06	-0.58	-0.59	-0.61	-0.57	-0.32	-0.33	-0.35	-0.23	-0.40	-0.69	-0.63	-0.46	-0.38	-0.26	-0.37	-0.15	-0.27	-0.28	-0.21
Occupation_2digit-ISCO_53	-0.65	-0.39	-0.22	-0.07	-0.29	-0.55	-0.67	-0.54	-0.37	-0.20	0.13	-0.57	-0.48	-0.62	-0.61	-0.17	-0.25	-0.38	-0.19	-0.30	-0.78	-0.74	-0.78	-0.35	-0.39	-0.32	-0.12	-0.17	-0.13	-0.22
Occupation_2digit-ISCO_54	-0.37	-0.57	-0.32	0.02	-0.24	-0.66	-0.65	-0.60	-0.22	-0.09	-0.19	-0.39	-0.59	-0.52	-0.50	-0.32	-0.34	-0.42	-0.17	-0.55	-0.83	-0.77	-0.65	-0.34	-0.31	-0.27	-0.08	-0.10	-0.11	-0.32
Occupation_2digit-ISCO_71	-0.66	-0.19	-0.31	-0.02	-0.27	-0.41	-0.60	-0.41	-0.32	-0.24	-0.08	-0.53	-0.44	-0.35	-0.40	-0.25	-0.30	-0.50	-0.20	-0.34	-0.62	-0.66	-0.44	-0.41	-0.27	-0.30	-0.10	-0.08	-0.24	-0.22
Occupation_2digit-ISCO_72	-0.62	-0.15	-0.23	-0.03	-0.23	-0.35	-0.59	-0.39	-0.24	-0.19	0.02	-0.55	-0.41	-0.29	-0.30	-0.24	-0.19	-0.31	-0.20	-0.32	-0.54	-0.55	-0.34	-0.34	-0.17	-0.35	-0.15	-0.13	-0.17	-0.22
Occupation_2digit-ISCO_73	-0.66	-0.22	-0.26	-0.04	-0.28	-0.38	0.44	-0.40	-0.38	-0.25	-0.01	-0.60	-0.35	-0.28	-0.36	-0.32	-0.27	-0.26	-0.21	-0.28	-0.58	-0.67	-0.34	-0.29	-0.27	-0.41	-0.12	-0.33	-0.22	-0.26
Occupation_2digit-ISCO_74	-0.56	-0.23	-0.20	0.01	-0.22	-0.38	-0.54	-0.37	-0.28	-0.17	0.05	-0.54	-0.46	-0.30	-0.27	-0.25	-0.19	-0.35	-0.23	-0.29	-0.54	-0.54	-0.33	-0.31	-0.18	-0.29	-0.10	-0.15	-0.11	-0.21
Occupation_2digit-ISCO_75	-0.65	-0.37	-0.37	-0.11	-0.36	-0.55	-0.78	-0.48	-0.38	-0.23	-0.11	-0.62	-0.51	-0.45	-0.41	-0.29	-0.30	-0.47	-0.26	-0.47	-0.75	-0.70	-0.45	-0.47	-0.33	-0.35	-0.20	-0.23	-0.16	-0.29
Occupation_2digit-ISCO_81	-0.62	-0.26	-0.27	-0.06	-0.31	-0.43	-0.70	-0.52	-0.28	-0.26	-0.00	-0.52	-0.49	-0.46	-0.25	-0.25	-0.22	-0.41	-0.17	-0.37	-0.58	-0.65	-0.37	-0.33	-0.20	-0.28	-0.09	-0.16	-0.17	-0.27
Occupation_2digit-ISCO_82	-0.59	-0.24	-0.25	-0.08	-0.25	-0.50	-0.79	-0.43	-0.28	-0.18	-0.04	-0.61	-0.64	-0.45	-0.29	-0.32	-0.36	-0.40	-0.25	-0.37	-0.62	-0.57	-0.41	-0.48	-0.27	-0.42	-0.15	-0.13	-0.19	-0.25
Occupation_2digit-ISCO_83	-0.65	-0.30	-0.31	-0.16	-0.39	-0.48	-0.79	-0.46	-0.29	-0.24	-0.03	-0.53	-0.49	-0.34	-0.39	-0.36	-0.29	-0.47	-0.26	-0.46	-0.64	-0.70	-0.43	-0.39	-0.25	-0.37	-0.17	-0.29	-0.26	-0.31
Occupation_2digit-ISCO_91	-0.78	-0.47	-0.50	-0.20	-0.41	-0.75	-0.76	-0.49	-0.43	-0.32	-0.21	-0.70	-0.72	-0.66	-0.58	-0.42	-0.43	-0.63	-0.34	-0.62	-0.80	-0.77	-0.62	-0.52	-0.43	-0.54	-0.27	-0.37	-0.29	-0.31
Occupation_2digit-ISCO_92	.	-0.44	-0.49	-0.20	-0.36	-0.62	-0.94	-0.64	-0.50	-0.19	-0.10	-0.67	-0.60	-0.61	-0.65	-0.47	-0.55	-0.34	-0.42	-0.53	-0.69	-0.82	-0.61	-0.52	-0.30	-0.61	-0.30	-0.59	-0.26	-0.31
Occupation_2digit-ISCO_93	-0.74	-0.45	-0.41	-0.11	-0.43	-0.58	-0.71	-0.59	-0.39	-0.30	-0.08	-0.61	-0.66	-0.52	-0.52	-0.35	-0.45	-0.57	-0.34	-0.47	-0.67	-0.70	-0.53	-0.45	-0.36	-0.43	-0.18	-0.34	-0.23	-0.27
Occupation_2digit-ISCO_94	-0.79	-0.51	-0.27	-0.23	-0.40	-0.72	-0.75	-0.45	-0.36	-0.28	-0.11	-0.63	-0.64	-0.56	-0.50	-0.44	-0.47	-0.38	-0.34	-0.50	-0.58	-0.66	-0.59	-0.43	-0.43	-0.54	-0.24	-0.33	-0.27	-0.37
Occupation_2digit-ISCO_95	.	-0.48	-0.56	-0.19	-0.72	-0.24	-0.70	-0.36	-0.48	.	-0.30	-0.75	.	-0.24	.	-0.44	-0.23	-0.68	0.11	.	-0.69	-0.65	-0.41	-0.50	-0.46	-0.42	.	.	-0.28	-
Occupation_2digit-ISCO_96	-0.67	-0.46	-0.49	-0.14	-0.45	-0.72	-0.76	-0.60	-0.38	-0.40	-0.15	-0.64	-0.63	-0.70	-0.58	-0.48	-0.55	-0.55	-0.34	-0.56	-0.73	-0.72	-0.59	-0.45	-0.37	-0.58	-0.29	-0.30	-0.26	-0.39

Table A.3: F-test of model effects for the men

Country	Intercept		Age		Age squared		Education		Occupation		Job experience		Job experience squared		Employment contract		Working time		Economic activity		Enterprise size		Enterprise control		Geographical location		Overall for the model	
	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value
Belgium	14514	<.01	375.2	<.01	17.65	<.01	188.23	<.01	246.38	<.01	62.81	<.01	57.51	<.01	1.9	0.17	725.06	<.01	76.95	<.01	6.63	<.01	0.82	0.36	0.72	0.49	1728.64	<.01
Bulgaria	1859.5	<.01	74.36	<.01	106.94	<.01	72.71	<.01	80.41	<.01	92.48	<.01	12.95	<.01	0.02	0.89	58.27	<.01	12.84	<.01	77.05	<.01	10.96	<.01	6.29	0.01	163.99	<.01
Czech Republic	50845	<.01	486.17	<.01	534.15	<.01	354.74	<.01	125.3	<.01	307.35	<.01	105.57	<.01	75.51	<.01	40.52	<.01	20.81	<.01	89.64	<.01	0.06	0.81	.	.	225.75	<.01
Denmark	36287	<.01	1103.62	<.01	1079.65	<.01	810.29	<.01	389.26	<.01	714.78	<.01	348.89	<.01	2.04	0.15	23.84	<.01	57.4	<.01	83.22	<.01	84.98	<.01	.	.	1224.09	<.01
Germany	42915	<.01	2284.97	<.01	2077.94	<.01	1093.83	<.01	356.31	<.01	1115.04	<.01	185.94	<.01	570.11	<.01	771.1	<.01	162.85	<.01	525.54	<.01	1.48	0.22	141.17	<.01	1196.41	<.01
Estonia	1916.5	<.01	222.83	<.01	373.46	<.01	95.81	<.01	61.55	<.01	130.58	<.01	117.2	<.01	0.08	0.78	35.06	<.01	13.3	<.01	21.93	<.01	0.38	0.54	.	.	132.53	<.01
Ireland	297.17	<.01	49.42	<.01	35.26	<.01	13.75	<.01	11.69	<.01	39.96	<.01	10.02	<.01	0.7	0.4	8.95	<.01	5.99	<.01	7.91	<.01	0.04	0.84	.	.	202.47	<.01
Greece	264.84	<.01	77.2	<.01	41.02	<.01	120.92	<.01	19.78	<.01	425.54	<.01	.	.	6.07	0.01	47.26	<.01	16.93	<.01	19.51	<.01	2.55	0.11	14.58	<.01	120.79	<.01
Spain	3867.7	<.01	209.3	<.01	160.96	<.01	294.78	<.01	77.54	<.01	1235.06	<.01	.	.	103	<.01	1.82	0.18	38.73	<.01	57.36	<.01	28.56	<.01	45.21	<.01	271.2	<.01
France	5912.9	<.01	140.33	<.01	63.83	<.01	384.99	<.01	196.68	<.01	589.39	<.01	.	.	49.35	<.01	4.21	0.04	34.51	<.01	0.07	0.99	0.36	0.55	28.75	<.01	429.15	<.01
Croatia	6128.2	<.01	144.47	<.01	125.83	<.01	165.75	<.01	25.18	<.01	65.56	<.01	24.3	<.01	32.96	<.01	0.05	0.82	4.75	<.01	12.09	<.01	1.88	0.17	.	.	85.37	<.01
Italy	7175.6	<.01	100.66	<.01	25.67	<.01	248.29	<.01	177.23	<.01	208.74	<.01	.	.	51.81	<.01	233.78	<.01	42.53	<.01	76.85	<.01	2.99	0.08	45.59	<.01	1507.03	<.01
Cyprus	181.7	<.01	32.93	<.01	26.78	<.01	20.78	<.01	20.65	<.01	159.65	<.01	.	.	0.01	0.92	2.19	0.14	2.97	<.01	8.1	<.01	0.85	0.36	.	.	76.88	<.01
Latvia	1109.8	<.01	81.39	<.01	132.63	<.01	54.02	<.01	43.04	<.01	104.56	<.01	.	.	0.08	0.78	1.71	0.19	9.7	<.01	25.95	<.01	15.79	<.01	.	.	97.41	<.01
Lithuania	592.42	<.01	30.6	<.01	49.14	<.01	55.84	<.01	18.82	<.01	79.9	<.01	28.29	<.01	0.29	0.59	9.83	<.01	11.32	<.01	31.65	<.01	0.1	0.75	.	.	72.67	<.01
Luxembourg	1727.7	<.01	146.97	<.01	82.09	<.01	51.35	<.01	45.48	<.01	87.54	<.01	.	.	54.88	<.01	6.05	0.01	15.78	<.01	7.29	<.01	45.85	<.01	.	.	249.18	<.01
Hungary	77411	<.01	167.31	<.01	171.82	<.01	460.65	<.01	145.01	<.01	241.53	<.01	53.06	<.01	261.09	<.01	98.41	<.01	24.85	<.01	153.82	<.01	10	<.01	77.17	<.01	599.52	<.01
Malta	864.04	<.01	96.01	<.01	84.87	<.01	10.73	<.01	27.83	<.01	24.16	<.01	22.04	<.01	0.67	0.41	4.35	0.04	9.56	<.01	9.76	<.01	0.86	0.35	.	.	42.62	<.01
Netherlands	1341.5	<.01	839.64	<.01	653.08	<.01	798.88	<.01	107.34	<.01	25.59	<.01	1	0.32	165.09	<.01	150.59	<.01	36.32	<.01	9.04	<.01	36.29	<.01	28.72	<.01	385.09	<.01
Austria	13911	<.01	428.29	<.01	230.59	<.01	568.87	<.01	209.73	<.01	571.76	<.01	39.44	<.01	10.6	<.01	119.46	<.01	45.4	<.01	83.87	<.01	7.87	<.01	34.05	<.01	474.39	<.01
Poland	26651	<.01	613.04	<.01	599.2	<.01	507.2	<.01	295.68	<.01	128.68	<.01	25.95	<.01	221.76	<.01	2.23	0.14	39.89	<.01	309.07	<.01	9.78	<.01	37.96	<.01	719.88	<.01
Portugal	1475.3	<.01	98.69	<.01	50.08	<.01	196.57	<.01	56.31	<.01	115.79	<.01	11	<.01	27.27	<.01	2.02	0.16	49.02	<.01	33.84	<.01	5.56	0.02	1.8	0.16	292.72	<.01
Romania	8918.1	<.01	47.64	<.01	55.59	<.01	163.17	<.01	115.13	<.01	168.21	<.01	49.84	<.01	0.12	0.73	12.89	<.01	34.24	<.01	320.39	<.01	45.86	<.01	42.53	<.01	298.88	<.01
Slovenia	3654.6	<.01	36.49	<.01	21.97	<.01	358.71	<.01	62.2	<.01	228.68	<.01	100.65	<.01	170.06	<.01	25.95	<.01	16.88	<.01	8.32	<.01	1.66	0.2	.	.	170.3	<.01
Slovakia	1630.9	<.01	184.93	<.01	183.76	<.01	195.23	<.01	37.37	<.01	91.69	<.01	23.72	<.01	11.62	<.01	17.89	<.01	21.55	<.01	74.1	<.01	4.66	0.03	.	.	160.09	<.01
Finland	11650	<.01	665.87	<.01	427.2	<.01	551.84	<.01	310.66	<.01	315.73	<.01	189.65	<.01	148.02	<.01	0.34	0.56	57.56	<.01	37.93	<.01	34.99	<.01	0.1	0.76	692.84	<.01
Sweden	50430	<.01	401.27	<.01	253.91	<.01	262.12	<.01	191.22	<.01	207.89	<.01	121.65	<.01	13.85	<.01	11.84	<.01	31.32	<.01	18.25	<.01	16.94	<.01	3.7	0.02	233.09	<.01
Iceland	24221	<.01	116.37	<.01	88.11	<.01	70.27	<.01	49.23	<.01	54.92	<.01	39.42	<.01	9.36	<.01	19.39	<.01	5.25	<.01	0.93	0.44	25.96	<.01	.	.	156.56	<.01
Norway	416967	<.01	5255.27	<.01	3684.51	<.01	1355.87	<.01	777.58	<.01	951.77	<.01	464.4	<.01	.	.	558.95	<.01	123.11	<.01	161.66	<.01	2.27	0.13	.	.	1749.45	<.01
Switzerland	15097	<.01	633.8	<.01	401.08	<.01	440.13	<.01	95.96	<.01	250.93	<.01	80.5	<.01	0.92	0.34	11.92	<.01	36.48	<.01	11.19	<.01	1.04	0.31	.	.	341.14	<.01

Table A.4: Financial returns for women

Country	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Constant	2.72	1.51	4.84	4.37	2.19	1.82	2.76	1.55	2.22	2.36	3.33	2.67	1.07	1.33	1.18	2.55	6.86	1.93	1.63	2.24	3.12	1.99	2.72	1.68	1.35	2.66	4.68	7.55	4.84	3.13
Age	0.02	0.00	0.01	0.03	0.02	0.01	0.02	0.02	0.01	0.01	0.00	0.00	0.02	0.01	0.01	0.03	0.01	0.02	0.05	0.02	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.01	0.02	0.02
Age2	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Job_experience	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.02	0.01	0.01	0.01	0.01	0.02	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Job_experience2	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	.	.	.	-0.00	.	.	.	-0.00	.	-0.00	.	-0.00	-0.00	-0.00	-0.00	-0.00	0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Education-ISCED_0_1_2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Education-ISCED_3_4	0.02	0.06	0.04	0.13	0.05	0.04	0.03	0.04	0.07	0.06	0.08	0.06	0.06	0.02	0.04	0.08	0.08	0.05	0.13	0.06	0.02	0.10	0.00	0.09	0.10	0.02	0.03	0.04	0.05	0.11
Education-ISCED_5_6	0.06	0.14	0.14	0.18	0.13	0.08	0.13	0.19	0.11	0.16	0.23	0.11	0.17	0.17	0.16	0.19	0.24	0.12	0.26	0.10	0.13	0.30	0.18	0.23	0.17	0.05	0.11	0.15	0.09	0.27
Education-ISCED_7_8	0.26	0.25	0.26	0.34	0.29	0.22	0.28	0.39	0.29	0.28	0.46	0.21	0.29	0.30	0.33	0.26	0.38	0.24	0.43	0.27	0.24	0.43	0.36	0.45	0.36	0.25	0.38	0.26	0.23	0.40
Working_time-Full_time	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Working_time-Part_time	-0.14	-0.04	-0.03	0.06	-0.06	0.02	0.06	-0.06	-0.01	0.01	0.01	-0.06	0.04	0.06	0.06	0.03	-0.04	0.09	-0.06	-0.03	0.02	0.04	-0.01	-0.04	-0.03	-0.00	-0.01	-0.04	-0.01	0.01
Economic_activity_section-NACE_B	-0.07	0.15	0.16	0.15	0.18	0.17	0.14	-0.02	0.28	0.18	0.16	0.27	0.20	0.24	0.16	-0.09	0.09	-0.25	0.09	0.20	0.25	0.08	0.14	0.31	0.06	0.09	0.32	.	0.47	-0.07
Economic_activity_section-NACE_C	0.04	-0.16	0.11	0.01	0.14	0.08	0.20	-0.07	0.06	0.10	0.07	0.16	-0.01	0.06	0.14	-0.29	0.11	-0.00	-0.03	0.13	0.14	0.07	0.12	0.15	0.14	0.15	0.17	0.05	0.16	-0.05
Economic_activity_section-NACE_D	0.10	0.23	0.26	0.11	0.30	0.19	0.24	0.17	0.30	0.18	0.32	0.18	-0.05	0.25	0.20	-0.02	0.26	0.70	0.08	0.27	0.28	0.64	0.09	0.35	0.28	0.21	0.19	0.21	0.26	0.04
Economic_activity_section-NACE_E	0.07	-0.11	0.07	0.03	0.13	0.17	0.17	-0.06	0.04	0.02	0.13	0.10	0.13	0.19	0.18	-0.20	0.08	-0.12	0.02	0.05	0.09	0.06	-0.04	0.21	0.08	0.08	0.16	0.09	0.12	-0.01
Economic_activity_section-NACE_F	-0.01	-0.19	0.04	-0.00	0.08	0.05	0.11	-0.10	0.04	0.17	0.10	0.16	-0.02	0.15	0.01	-0.22	0.02	-0.12	0.06	0.17	0.14	0.02	0.07	0.15	0.01	0.13	0.20	0.14	0.21	-0.03
Economic_activity_section-NACE_G	0.04	-0.01	0.12	-0.06	0.07	0.01	0.00	-0.07	-0.03	0.02	0.14	0.15	0.00	0.07	0.08	-0.30	0.06	-0.02	-0.15	0.09	0.12	0.08	0.09	0.12	0.16	0.12	0.16	0.07	0.12	-0.11
Economic_activity_section-NACE_H	0.05	-0.15	0.08	0.06	0.02	0.17	0.14	0.06	0.08	0.11	0.19	0.01	0.12	0.18	0.18	-0.21	0.08	0.13	-0.06	0.06	0.11	0.28	0.02	0.20	0.05	0.12	0.16	0.09	0.15	-0.09
Economic_activity_section-NACE_I	-0.01	-0.17	-0.02	-0.04	0.01	0.05	-0.06	-0.05	0.04	0.03	0.23	0.08	0.04	0.05	0.08	-0.30	-0.00	-0.00	-0.17	0.00	0.11	0.05	0.10	0.14	0.09	0.04	0.09	0.04	0.02	-0.14
Economic_activity_section-NACE_J	0.01	0.24	0.22	-0.01	0.14	0.25	0.29	-0.03	0.03	0.08	0.23	0.14	0.10	0.34	0.27	-0.20	0.18	0.16	-0.00	0.15	0.28	0.20	0.30	0.15	0.23	0.15	0.19	0.16	0.23	-0.01
Economic_activity_section-NACE_K	0.14	-0.09	0.13	0.06	0.27	0.26	0.26	0.17	0.23	0.10	0.22	0.40	0.21	0.29	0.30	-0.07	0.19	0.19	0.07	0.23	0.27	0.50	0.12	0.20	0.27	0.18	0.26	0.28	0.22	0.08
Economic_activity_section-NACE_L	0.05	-0.06	0.13	0.03	0.17	0.10	0.07	0.03	0.04	0.03	0.27	0.07	0.05	0.20	0.11	-0.12	0.11	0.05	0.08	0.14	0.12	0.19	0.15	0.14	0.13	0.10	0.19	.	0.19	0.01
Economic_activity_section-NACE_M	0.13	0.07	0.17	-0.03	0.12	0.20	0.21	-0.03	-0.05	0.09	0.19	0.13	0.09	0.26	0.20	-0.19	0.14	0.04	-0.02	0.12	0.24	0.15	0.24	0.18	0.22	0.08	0.17	.	0.16	0.00
Economic_activity_section-NACE_N	0.03	-0.04	0.02	0.01	0.01	0.09	0.07	-0.16	-0.09	0.06	0.10	0.05	0.04	0.13	0.11	-0.26	0.09	-0.04	-0.10	0.08	0.05	0.05	0.15	0.10	0.11	0.00	0.07	.	0.06	-0.13
Economic_activity_section-NACE_O	.	-0.27	0.04	-0.03	-0.06	0.22	-0.06	.	-0.06	-0.01	0.00	-0.01	-0.04	0.19	0.17	0.06	0.01	0.01	0.07	.	-0.02	.	0.26	0.07	0.03	0.06	0.05	0.15	0.03	0.03
Economic_activity_section-NACE_P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Economic_activity_section-NACE_Q	-0.04	-0.11	0.07	-0.10	0.06	0.10	0.05	-0.20	-0.07	-0.04	0.05	-0.00	-0.02	0.14	0.08	-0.18	0.00	-0.03	0.05	0.07	-0.03	-0.04	0.26	0.04	0.09	0.01	0.01	0.16	0.03	-0.07
Economic_activity_section-NACE_R	-0.13	-0.13	0.07	-0.11	0.01	0.02	0.04	-0.03	0.02	0.04	0.08	0.03	0.11	0.01	-0.01	-0.10	-0.02	0.24	-0.10	0.01	-0.03	0.07	0.03	0.08	0.08	-0.04	0.05	.	0.00	-0.08
Economic_activity_section-NACE_S	0.06	-0.17	0.00	-0.04	0.10	-0.06	0.01	-0.19	-0.09	-0.02	0.01	0.01	0.05	0.22	0.06	-0.13	-0.12	-0.17	-0.00	0.01	0.03	0.06	0.01	0.06	-0.01	-0.03	0.07	.	0.07	-0.06
Employment_contract-Indefinite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Employment_contract-Temporary	0.01	-0.02	-0.06	0.06	-0.06	-0.03	-0.03	0.04	-0.04	-0.09	-0.07	-0.05	0.01	0.01	-0.02	-0.14	-0.21	-0.03	-0.07	-0.02	-0.09	-0.05	-0.05	-0.05	-0.05	-0.04	-0.04	-0.07	.	-0.03
Enterprise_control-Private	0.01	0.20	0.02	0.11	0.01	0.12	-0.14	-0.07	-0.14	-0.00	-0.03	-0.15	-0.14	0.23	0.13	-0.24	0.11	0.00	0.01	-0.03	-0.05	-0.06	-0.15	0.04	0.01	0.04	0.03	0.20	-0.02	-0.03
Enterprise_control-Public	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enterprise_size-E10_49	-0.01	-0.11	-0.06	-0.04	-0.06	-0.08	-0.03	-0.10	-0.05	0.00	-0.07	-0.04	-0.05	-0.11	-0.13	-0.04	-0.05	-0.06	-0.02	-0.03	-0.10	-0.06	-0.19	-0.02	-0.07	-0.02	-0.04	-0.01	-0.04	-0.02
Enterprise_size-E50_249	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enterprise_size-E250_499	0.01	0.06	0.03	0.02	0.05	0.03	0.05	0.05	0.00	-0.01	0.02	0.02	0.05	0.01	0.02	0.03	0.06	0.05	0.02	0.03	0.06	0.03	0.09	0.00	0.06	0.01	0.03	-0.03	0.02	0.03
Enterprise_size-E500_999	0.01	0.16	0.06	0.02	0.09	0.03	0.10	0.05	0.03	-0.00	-0.00	0.03	0.14	-0.02	0.08	0.03	0.09	-0.03	0.02	0.03	0.10	0.07	0.11	-0.00	0.06	0.02	0.01	-0.07	0.01	0.03
Enterprise_size-E1000	0.01	0.22	0.09	-0.00	0.14	0.01	0.06	0.04	0.04	-0.00	0.01	0.05	0.13	-0.01	0.06	0.08	0.12	-0.04	0.01	0.04	0.07	0.03	0.11	0.06	0.07	0.00	0.01	-0.06	0.02	0.02

Country	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Occupation_2digit-ISCO_11	-0.02	0.50	0.40	0.45	0.48	0.28	0.33	-0.00	0.44	0.51	0.60	0.37	-0.02	0.25	0.10	0.39	0.42	0.34	0.23	0.37	0.18	0.06	0.38	0.41	0.38	0.64	0.62	0.64	0.35	0.12
Occupation_2digit-ISCO_12	-0.09	0.53	0.36	0.35	0.37	0.18	-0.04	0.29	0.28	0.19	0.15	0.59	-0.09	0.26	0.17	0.41	0.47	0.22	0.26	0.23	-0.12	0.07	0.35	0.31	0.31	0.54	0.38	0.29	0.25	0.12
Occupation_2digit-ISCO_13	-0.08	0.32	0.28	0.25	0.28	0.07	-0.10	0.26	0.21	0.14	0.40	0.30	-0.08	0.18	0.10	0.26	0.27	0.14	0.13	0.18	-0.18	-0.09	0.33	0.19	0.25	0.34	0.32	0.27	0.20	0.00
Occupation_2digit-ISCO_14	-0.40	0.24	-0.04	0.03	0.11	-0.15	-0.51	-0.02	0.02	0.16	0.45	-0.20	-0.40	-0.03	-0.02	0.09	-0.02	0.07	-0.06	-0.13	-0.46	-0.18	0.11	0.21	-0.07	0.43	0.10	-0.11	-0.05	-0.15
Occupation_2digit-ISCO_21	-0.35	0.03	0.00	0.12	0.03	-0.22	-0.45	-0.11	-0.01	0.16	0.19	-0.19	-0.35	-0.11	-0.15	-0.04	-0.01	-0.13	0.02	-0.04	-0.50	-0.29	0.01	0.01	-0.00	0.13	0.08	0.05	0.07	-0.13
Occupation_2digit-ISCO_22	-0.22	0.04	0.17	0.14	0.18	0.11	-0.45	-0.17	0.15	0.11	0.28	0.25	-0.22	0.17	0.01	0.38	0.12	0.19	0.04	0.18	-0.24	-0.13	0.29	0.19	0.06	0.41	0.18	0.09	0.10	-0.01
Occupation_2digit-ISCO_23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupation_2digit-ISCO_24	-0.30	0.13	0.10	0.13	0.11	-0.03	-0.37	-0.12	0.01	0.22	0.17	-0.31	-0.30	0.07	-0.12	-0.00	0.14	-0.06	0.04	0.00	-0.43	-0.28	0.10	0.06	0.09	0.16	0.13	0.05	0.01	-0.07
Occupation_2digit-ISCO_25	-0.29	0.41	0.11	0.16	0.09	0.01	-0.26	-0.11	-0.02	0.17	0.22	-0.31	-0.29	0.16	0.04	-0.01	0.07	0.16	0.03	0.02	-0.22	-0.27	0.41	0.04	0.13	0.14	0.12	0.11	0.06	-0.01
Occupation_2digit-ISCO_26	-0.31	-0.03	-0.07	0.09	-0.03	-0.17	-0.36	-0.21	-0.06	0.08	0.10	-0.06	-0.31	-0.09	-0.20	0.12	0.05	-0.21	-0.02	-0.03	-0.32	-0.26	0.04	0.02	-0.11	0.06	0.07	0.01	0.01	-0.05
Occupation_2digit-ISCO_31	-0.43	-0.07	-0.13	-0.03	-0.06	-0.33	-0.51	-0.21	-0.16	-0.06	-0.09	-0.40	-0.43	-0.19	-0.29	-0.14	-0.20	-0.18	-0.07	-0.13	-0.57	-0.50	-0.08	-0.06	-0.06	-0.05	-0.01	0.20	0.01	-0.12
Occupation_2digit-ISCO_32	-0.31	0.01	0.03	0.04	-0.07	-0.14	-0.61	-0.28	-0.21	0.02	0.11	-0.36	-0.31	-0.10	-0.26	0.17	-0.07	0.05	-0.06	-0.07	-0.58	-0.47	-0.03	-0.02	-0.11	-0.01	-0.10	-0.07	-0.10	-0.11
Occupation_2digit-ISCO_33	-0.42	-0.01	-0.07	0.01	-0.06	-0.26	-0.55	-0.31	-0.14	-0.06	0.09	-0.36	-0.42	-0.15	-0.32	-0.13	-0.11	-0.15	-0.08	-0.11	-0.55	-0.39	-0.14	-0.09	-0.05	-0.06	-0.07	-0.10	-0.06	-0.12
Occupation_2digit-ISCO_34	-0.37	-0.20	-0.13	-0.02	-0.03	-0.40	-0.48	-0.43	-0.23	-0.10	-0.00	-0.52	-0.37	-0.27	-0.39	-0.06	-0.11	-0.27	-0.13	-0.15	-0.63	-0.51	-0.05	-0.19	-0.25	-0.09	-0.10	-0.09	-0.07	-0.12
Occupation_2digit-ISCO_35	-0.41	-0.04	-0.04	0.04	0.04	-0.21	-0.56	-0.15	-0.17	-0.03	-0.01	-0.38	-0.41	-0.24	-0.42	-0.12	-0.08	-0.06	-0.12	-0.11	-0.49	-0.40	-0.08	-0.11	-0.10	-0.01	-0.08	0.01	-0.06	-0.18
Occupation_2digit-ISCO_41	-0.59	-0.27	-0.22	-0.08	-0.16	-0.40	-0.72	-0.30	-0.31	-0.21	-0.04	-0.51	-0.59	-0.35	-0.44	-0.17	-0.24	-0.29	-0.19	-0.22	-0.64	-0.57	-0.22	-0.20	-0.13	-0.16	-0.14	-0.19	-0.16	-0.15
Occupation_2digit-ISCO_42	-0.67	-0.30	-0.27	-0.16	-0.23	-0.38	-0.71	-0.36	-0.32	-0.25	-0.11	-0.52	-0.67	-0.31	-0.39	-0.22	-0.23	-0.30	-0.21	-0.25	-0.67	-0.65	-0.20	-0.24	-0.19	-0.20	-0.22	-0.24	-0.19	-0.23
Occupation_2digit-ISCO_43	-0.51	-0.24	-0.17	-0.09	-0.17	-0.41	-0.66	-0.25	-0.24	-0.22	-0.06	-0.44	-0.51	-0.28	-0.36	-0.16	-0.14	-0.22	-0.13	-0.18	-0.63	-0.66	-0.18	-0.19	-0.14	-0.16	-0.15	-0.13	-0.11	-0.24
Occupation_2digit-ISCO_44	-0.71	-0.16	-0.25	-0.10	-0.12	-0.52	-0.75	-0.34	-0.37	-0.18	-0.05	-0.55	-0.71	-0.41	-0.54	-0.19	-0.23	-0.20	-0.25	-0.30	-0.65	-0.62	-0.41	-0.15	-0.28	-0.20	-0.16	-0.48	-0.22	-0.31
Occupation_2digit-ISCO_51	-0.71	-0.35	-0.35	-0.11	-0.34	-0.47	-0.64	-0.40	-0.29	-0.18	-0.19	-0.56	-0.71	-0.36	-0.42	-0.29	-0.28	-0.40	-0.24	-0.36	-0.73	-0.74	-0.40	-0.30	-0.30	-0.19	-0.15	-0.29	-0.18	-0.29
Occupation_2digit-ISCO_52	-0.78	-0.45	-0.36	-0.23	-0.37	-0.59	-0.71	-0.44	-0.39	-0.24	-0.28	-0.56	-0.78	-0.48	-0.49	-0.27	-0.34	-0.31	-0.28	-0.39	-0.75	-0.67	-0.31	-0.36	-0.29	-0.25	-0.13	-0.33	-0.27	-0.28
Occupation_2digit-ISCO_53	-0.64	-0.29	-0.21	-0.05	-0.26	-0.54	-0.82	-0.32	-0.37	-0.14	-0.09	-0.53	-0.64	-0.45	-0.46	-0.16	-0.20	-0.26	-0.16	-0.26	-0.72	-0.74	-0.64	-0.23	-0.32	-0.17	-0.08	-0.19	-0.10	-0.20
Occupation_2digit-ISCO_54	-0.38	-0.62	-0.43	0.02	-0.20	-0.50	-0.23	-0.59	-0.21	-0.01	-0.33	-0.37	-0.38	-0.37	-0.44	-0.21	-0.36	-0.31	-0.10	-0.41	-0.85	-0.80	-0.48	-0.32	-0.15	-0.13	-0.12	-0.09	-0.10	-0.22
Occupation_2digit-ISCO_71	-0.70	-0.20	-0.12	-0.04	-0.25	-0.35	-0.55	-0.54	-0.28	-0.27	-0.06	-0.54	-0.70	-0.38	-0.30	-0.17	-0.45	-0.25	-0.29	-0.38	-0.55	-0.79	-0.31	-0.19	-0.08	-0.22	-0.15	-0.09	-0.24	-0.25
Occupation_2digit-ISCO_72	-0.61	-0.18	-0.31	-0.09	-0.23	-0.41	0.01	-0.32	-0.15	-0.23	-0.21	-0.53	-0.61	-0.26	-0.18	-0.35	-0.36	-0.22	-0.07	-0.23	-0.61	-0.72	-0.19	-0.34	-0.03	-0.26	-0.16	-0.20	-0.13	-0.26
Occupation_2digit-ISCO_73	-0.69	-0.33	-0.42	-0.13	-0.32	-0.50	-0.78	-0.50	-0.41	-0.44	-0.28	-0.61	-0.69	-0.31	-0.47	-0.11	-0.38	-0.33	-0.22	-0.34	-0.72	-0.81	-0.32	-0.32	-0.28	-0.34	-0.18	-0.41	-0.22	-0.26
Occupation_2digit-ISCO_74	-0.59	-0.17	-0.31	-0.06	-0.13	-0.72	0.04	-0.45	-0.31	-0.25	-0.19	-0.53	-0.59	-0.37	-0.21	-0.31	-0.29	-0.42	-0.24	-0.28	-0.66	-0.62	-0.27	-0.27	-0.28	-0.23	-0.23	-0.12	-0.12	-0.31
Occupation_2digit-ISCO_75	-0.69	-0.35	-0.36	-0.13	-0.38	-0.55	-0.97	-0.44	-0.42	-0.27	-0.35	-0.65	-0.69	-0.42	-0.42	-0.26	-0.36	-0.39	-0.27	-0.43	-0.76	-0.78	-0.35	-0.39	-0.29	-0.25	-0.22	-0.34	-0.22	-0.34
Occupation_2digit-ISCO_81	-0.66	-0.35	-0.34	-0.10	-0.40	-0.53	-0.83	-0.55	-0.34	-0.31	-0.24	-0.58	-0.66	-0.40	-0.37	-0.36	-0.35	-0.33	-0.27	-0.42	-0.71	-0.80	-0.31	-0.38	-0.19	-0.27	-0.12	-0.23	-0.21	-0.36
Occupation_2digit-ISCO_82	-0.63	-0.25	-0.29	-0.19	-0.29	-0.55	-0.68	-0.18	-0.25	-0.34	-0.34	-0.59	-0.63	-0.33	-0.41	-0.03	-0.37	-0.28	-0.32	-0.33	-0.69	-0.70	-0.32	-0.46	-0.21	-0.37	-0.17	-0.30	-0.26	-0.41
Occupation_2digit-ISCO_83	-0.69	-0.21	-0.27	-0.18	-0.41	-0.41	-0.75	-0.42	-0.24	-0.27	-0.10	-0.48	-0.69	-0.18	-0.28	-0.26	-0.15	-0.26	-0.18	-0.44	-0.55	-0.87	-0.26	-0.29	-0.11	-0.16	-0.13	-0.29	-0.18	-0.22
Occupation_2digit-ISCO_91	-0.81	-0.43	-0.60	-0.20	-0.44	-0.75	-0.90	-0.46	-0.37	-0.26	-0.37	-0.69	-0.81	-0.58	-0.64	-0.46	-0.49	-0.54	-0.35	-0.53	-0.83	-0.81	-0.48	-0.45	-0.44	-0.36	-0.30	-0.37	-0.24	-0.33
Occupation_2digit-ISCO_92	.	-0.41	-0.62	-0.18	-0.41	-0.57	-1.04	-0.59	-0.47	-0.22	-0.25	-0.65	.	-0.52	-0.61	-0.21	-0.74	-0.25	-0.34	-0.50	-0.79	-0.83	-0.43	-0.50	-0.43	-0.44	-0.32	-0.93	-0.30	-0.32
Occupation_2digit-ISCO_93	-0.76	-0.40	-0.41	-0.19	-0.50	-0.52	-0.63	-0.56	-0.43	-0.33	-0.30	-0.53	-0.76	-0.48	-0.57	-0.33	-0.49	-0.53	-0.38	-0.44	-0.75	-0.78	-0.40	-0.42	-0.27	-0.28	-0.24	-0.39	-0.24	-0.30
Occupation_2digit-ISCO_94	-0.77	-0.44	-0.46	-0.20	-0.42	-0.73	-0.85	-0.48	-0.42	-0.26	-0.26	-0.60	-0.77	-0.51	-0.55	-0.39	-0.43	-0.60	-0.34	-0.47	-0.74	-0.79	-0.42	-0.40	-0.45	-0.33	-0.23	-0.34	-0.25	-0.33
Occupation_2digit-ISCO_95	.	-0.40	-0.58	-0.05	-0.61	-	-	-	-0.62	.	-0.35	-	.	-0.64	.	-	-0.36	-0.38	-	.	-0.33	-0.63	-0.18	-0.49	-0.27	-0.24	.	.	-0.39	-0.50
Occupation_2digit-ISCO_96	-0.71	-0.43	-0.59	-0.17	-0.43	-0.76	-0.67	-0.53	-0.39	-0.50	-0.31	-0.56	-0.71	-0.55	-0.59	-0.45	-0.69	-0.50	-0.33	-0.47	-0.79	-0.74	-0.43	-0.39	-0.35	-0.34	-0.29	-0.31	-0.23	-0.39

Table A.5: F-test of model effects for women

Country	Intercept		Age		Age squared		Education		Occupation		Job experience		Job experience squared		Employment contract		Working time		Economic activity		Enterprise size		Enterprise control		Geographical location		Overall for the model	
	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value	F value	P value
Belgium	10942	<.01	291.36	<.01	24.12	<.01	92.68	<.01	216.45	<.01	53.19	<.01	34.95	<.01	1.74	0.19	1109.67	<.01	62.82	<.01	11.39	<.01	0.96	0.33	2.03	0.13	1672.09	<.01
Bulgaria	2716.8	<.01	4.91	0.03	3.08	0.08	119.24	<.01	86.18	<.01	180.4	<.01	72.73	<.01	3.42	0.06	8.68	<.01	21.26	<.01	101.28	<.01	85.31	<.01	48.36	<.01	172.55	<.01
Czech Republic	76039	<.01	70.08	<.01	59.13	<.01	486.2	<.01	248.75	<.01	198.04	<.01	79.22	<.01	78.67	<.01	7.25	<.01	11.09	<.01	30.82	<.01	2.11	0.15	.	.	455.5	<.01
Denmark	123245	<.01	2581.86	<.01	1885.6	<.01	1478.87	<.01	324.12	<.01	1280.52	<.01	690.44	<.01	8.26	<.01	293.25	<.01	35.74	<.01	13.15	<.01	191.59	<.01	.	.	1311.34	<.01
Germany	38682	<.01	1376.64	<.01	1281.64	<.01	877.89	<.01	393.35	<.01	1345.31	<.01	292.22	<.01	368.21	<.01	618.35	<.01	113.03	<.01	357.51	<.01	1.61	0.2	82.24	<.01	1047.37	<.01
Estonia	4813.2	<.01	47.27	<.01	116.48	<.01	182.39	<.01	169.06	<.01	94.41	<.01	95.01	<.01	2.42	0.12	8.02	<.01	11.28	<.01	23.33	<.01	13.76	<.01	.	.	243.96	<.01
Ireland	418.05	<.01	14.91	<.01	10.57	<.01	14.57	<.01	16.57	<.01	12.6	<.01	0.82	0.37	0.94	0.33	4.96	0.03	5.39	<.01	3.33	<.01	7.63	<.01	.	.	44.74	<.01
Greece	397.75	<.01	57.13	<.01	31.35	<.01	124.87	<.01	15.86	<.01	445.63	<.01	.	.	4.47	0.03	15.98	<.01	17.84	<.01	19.81	<.01	13.73	<.01	9.94	<.01	135.59	<.01
Spain	3459.3	<.01	36.26	<.01	26.69	<.01	267.9	<.01	70.3	<.01	756.97	<.01	.	.	26.43	<.01	2.11	0.15	29.94	<.01	18.29	<.01	151.8	<.01	36.73	<.01	252.42	<.01
France	4815	<.01	60.31	<.01	25.87	<.01	355.72	<.01	147.6	<.01	1070.31	<.01	.	.	97.31	<.01	6.8	<.01	32.94	<.01	0.63	0.64	0.41	0.52	35.51	<.01	444.63	<.01
Croatia	8733.9	<.01	2.41	0.12	0.02	0.89	278.99	<.01	46.66	<.01	107.86	<.01	50.41	<.01	46.82	<.01	0.68	0.41	8.78	<.01	9.73	<.01	1.33	0.25	.	.	195.82	<.01
Italy	9106.3	<.01	13.31	<.01	1.1	0.29	418.2	<.01	206.62	<.01	203.54	<.01	.	.	73.82	<.01	196.6	<.01	42.73	<.01	40.49	<.01	164.28	<.01	18.09	<.01	1076.71	<.01
Cyprus	310.41	<.01	30.31	<.01	17.19	<.01	26.88	<.01	28.88	<.01	244.04	<.01	.	.	0.03	0.86	0.92	0.34	3.99	<.01	8.67	<.01	11.64	<.01	.	.	22245.7	.
Latvia	1263.2	<.01	21.72	<.01	47.29	<.01	109.83	<.01	65.95	<.01	76.46	<.01	.	.	0.25	0.62	32.42	<.01	12.15	<.01	8.91	<.01	86.01	<.01	.	.	334.74	<.01
Lithuania	685.66	<.01	30.28	<.01	37.8	<.01	107.64	<.01	41.36	<.01	33.32	<.01	18.61	<.01	1.12	0.29	17.41	<.01	7.56	<.01	29.95	<.01	27.01	<.01	.	.	103.47	<.01
Luxembourg	851.94	<.01	97.13	<.01	63.25	<.01	22.07	<.01	27.83	<.01	50.98	<.01	.	.	26.37	<.01	10.13	<.01	11.66	<.01	9.72	<.01	64.03	<.01	.	.	195.9	<.01
Hungary	135105	<.01	85.3	<.01	52.96	<.01	715.79	<.01	249.08	<.01	408.01	<.01	93.66	<.01	361.82	<.01	47.49	<.01	10.54	<.01	118.15	<.01	74.2	<.01	122.33	<.01	1368.77	<.01
Malta	1023.1	<.01	46.83	<.01	39.53	<.01	16.21	<.01	16.73	<.01	19.66	<.01	6.6	0.01	2.47	0.12	21.08	<.01	9.4	<.01	5.6	<.01	0	0.95	.	.	55.16	<.01
Netherlands	3011.3	<.01	1316.82	<.01	1082.77	<.01	1036.91	<.01	120.38	<.01	330.16	<.01	97.51	<.01	184.84	<.01	153.66	<.01	49.07	<.01	7.95	<.01	0.76	0.38	12.86	<.01	496.75	<.01
Austria	12248	<.01	361.86	<.01	210.07	<.01	364.03	<.01	176.3	<.01	410.61	<.01	11.04	<.01	4.19	0.04	50.66	<.01	37.97	<.01	42.77	<.01	8.26	<.01	21.16	<.01	399.46	<.01
Poland	16478	<.01	230.51	<.01	157.3	<.01	625.08	<.01	541.19	<.01	278.76	<.01	78.72	<.01	459.85	<.01	2.23	0.14	37.47	<.01	182.19	<.01	23.57	<.01	48.08	<.01	991.64	<.01
Portugal	2955.9	<.01	11.93	<.01	0	0.98	227.57	<.01	71.94	<.01	53.18	<.01	0.69	0.4	46.5	<.01	8.32	<.01	46.91	<.01	26.18	<.01	19.33	<.01	4.93	<.01	361.63	<.01
Romania	7708.3	<.01	61.7	<.01	60.21	<.01	133.41	<.01	147.32	<.01	139.91	<.01	43.9	<.01	5.19	0.02	1.1	0.29	30.55	<.01	283.4	<.01	84.88	<.01	48.66	<.01	347.35	<.01
Slovenia	3308.9	<.01	1.83	0.18	6.49	0.01	500.23	<.01	81.64	<.01	256.8	<.01	78.69	<.01	79.26	<.01	8.53	<.01	12.77	<.01	3.29	0.01	5.01	0.03	.	.	277.51	<.01
Slovakia	3286.1	<.01	26.48	<.01	15.2	<.01	253.06	<.01	122.98	<.01	137.25	<.01	79.18	<.01	56.68	<.01	12.2	<.01	12.37	<.01	24.41	<.01	0.12	0.73	.	.	309.49	<.01
Finland	45468	<.01	110.96	<.01	27.19	<.01	1314.25	<.01	334.49	<.01	922.28	<.01	699.68	<.01	160.43	<.01	0.51	0.48	58	<.01	18.07	<.01	97.92	<.01	7.72	<.01	2027.68	<.01
Sweden	49819	<.01	228.27	<.01	139.26	<.01	322.76	<.01	225.23	<.01	131.78	<.01	67.71	<.01	119.96	<.01	6.89	<.01	29.86	<.01	7.68	<.01	14.12	<.01	21.49	<.01	276.78	<.01
Iceland	35787	<.01	29.71	<.01	21.08	<.01	94.87	<.01	67.63	<.01	48.65	<.01	22.98	<.01	9.1	<.01	11.74	<.01	11.34	<.01	5.98	<.01	42.62	<.01	.	.	233.99	<.01
Norway	691791	<.01	9148.46	<.01	.	.	1758.78	<.01	737.94	<.01	938.59	<.01	584	<.01	.	.	22.09	<.01	110.16	<.01	189.99	<.01	36.93	<.01	.	.	2131.75	<.01
Switzerland	14081	<.01	517.62	<.01	376.19	<.01	361.23	<.01	79.77	<.01	159.05	<.01	40.77	<.01	7.17	<.01	12.99	<.01	21.95	<.01	8.54	<.01	11.71	<.01	.	.	1134.13	<.01

Table A.6: Comparison between the financial returns of men (lower bound) and women (upper bound).

Upper bound of women – lower bound of men (only negative values are displayed)

Country	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Age		-0,01	-0,01	-0,01	-0,00	-0,01	-0,00		-0,01		-0,01	-0,00		-0,00			-0,00		-0,00		-0,00	-0,01		-0,00	-0,01	-0,01	-0,00	-0,01	-0,00	-0,00
Age2																														
Job_experience			-0,00		-0,00				-0,00					-0,00	-0,00		-0,00						-0,00			-0,00			-0,00	-0,00
Job_experience2				-0,00																	-0,00									
Education-ISCED_0_1_2	-		-	-	-		-		-		-			-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Education ISCED_3_4	-0,02		-0,00		-0,01	-0,01			-0,01																-0,08				-0,01	
Education ISCED_5_6	-0,03				-0,02				-0,01								-0,02				-0,04	-0,01			-0,05	-0,00			-0,02	
Education ISCED_7_8	-0,00				-0,01			-0,01									-0,04				-0,04	-0,01			-0,04				-0,01	
Working_time Full_time	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Working_time Part_time																														
Economic_activity_section NACE_B	-0,01				-0,05	-0,09									-0,11		-0,06				-0,12		-0,04	-0,02		-0,10				
Economic_activity_section NACE_C	-0,01	-0,05	-0,02		-0,12	-0,05			-0,04					-0,01	-0,07		-0,13	-0,01			-0,04		-0,07	-0,08	-0,03					
Economic_activity_section NACE_D	-0,00				-0,07												-0,10						-0,10			-0,05				
Economic_activity_section NACE_E					-0,08			-0,00	-0,02								-0,07				-0,08		-0,11			-0,07				
Economic_activity_section NACE_F		-0,04	-0,02	-0,03	-0,15	-0,00			-0,04						-0,09		-0,13				-0,01		-0,06	-0,06	-0,04					-0,02
Economic_activity_section NACE_G			-0,02		-0,09	-0,05			-0,01					-0,02	-0,03		-0,13				-0,03		-0,07	-0,09		-0,05				-0,02
Economic_activity_section NACE_H					-0,09												-0,04						-0,07			-0,08			-0,02	
Economic_activity_section NACE_I					-0,05												-0,09									-0,08				
Economic_activity_section NACE_J	-0,01		-0,03		-0,14				-0,00						-0,07		-0,05				-0,02		-0,02	-0,06		-0,01				-0,02
Economic_activity_section NACE_K		-0,03	-0,09		-0,07	-0,02								-0,07	-0,11		-0,13						-0,14	-0,05		-0,07			-0,05	-0,08
Economic_activity_section NACE_L					-0,05										-0,02		-0,03				-0,02			-0,04					-0,02	-0,00
Economic_activity_section NACE_M			-0,02		-0,12				-0,03						-0,08		-0,06	-0,04					-0,02	-0,00		-0,04			-0,02	-0,01
Economic_activity_section NACE_N					-0,06												-0,05									-0,04			-0,01	-0,05
Economic_activity_section NACE_O			-0,01						-0,03														-0,02	-0,05	-0,03	-0,09	-0,05		-0,01	-0,01
Economic_activity_section NACE_P	-	-	-	-	-		-		-								-		-		-		-	-	-	-			-	-
Economic_activity_section NACE_Q		-0,06			-0,06												-0,05				-0,01					-0,02			-0,01	
Economic_activity_section NACE_R					-0,08												-0,08				-0,02		-0,05			-0,05			-0,01	
Economic_activity_section NACE_S					-0,04				-0,01									-0,00			-0,00					-0,02				
Employment_contract Indefinite	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Employment_contract Temporary																											-0,01			
Enterprise_control Private								-0,04	-0,03			-0,08							-0,05				-0,01						-0,02	
Enterprise_control Public	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enterprise_size E10_49																														
Enterprise_size E50_249	-	-	-	-	-		-		-		-			-	-		-		-		-		-	-	-	-	-		-	-
Enterprise_size E250_499									-0,00								-0,00												-0,00	
Enterprise_size E500_999			-0,01		-0,00							-0,00																		
Enterprise_size E1000			-0,01		-0,04												-0,02				-0,01			-0,04		-0,01	-0,01			

Country	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Occupation_2digit ISCO_11				-0,07	-0,01					-0,04						-0,07			-0,02		-0,01								-0,02	
Occupation_2digit ISCO_12			-0,01	-0,01						-0,09	-0,14										-0,07						-0,02		-0,03	
Occupation_2digit ISCO_13				-0,01						-0,01		-0,02					-0,01					-0,01				-0,02				
Occupation_2digit ISCO_14			-0,07	-0,01	-0,04							-0,01					-0,08		-0,01	-0,01	-0,03				-0,06				-0,08	
Occupation_2digit ISCO_21				-0,03													-0,08				-0,06									
Occupation_2digit ISCO_22		-0,05	-0,09	-0,14	-0,04	-0,02				-0,10							-0,04								-0,07		-0,12		-0,06	-0,03
Occupation_2digit ISCO_23	-	-	-	-	-					-	-	-					-								-	-	-	-	-	-
Occupation_2digit ISCO_24				-0,02																							-0,01		-0,01	
Occupation_2digit ISCO_25		-0,02															-0,04													
Occupation_2digit ISCO_26																	-0,00													
Occupation_2digit ISCO_31			-0,02	-0,07							-0,12						-0,09				-0,08									
Occupation_2digit ISCO_32																													-0,04	
Occupation_2digit ISCO_33				-0,04							-0,01										-0,04						-0,07		-0,02	
Occupation_2digit ISCO_34		-0,02											-0,06				-0,09				-0,02	-0,06								
Occupation_2digit ISCO_35											-0,04																			
Occupation_2digit ISCO_41																														
Occupation_2digit ISCO_42											-0,02										-0,01									
Occupation_2digit ISCO_43																														
Occupation_2digit ISCO_44																	-0,03													
Occupation_2digit ISCO_51			-0,03								-0,07										-0,01	-0,03								
Occupation_2digit ISCO_52					-0,04						-0,11								-0,01		-0,01									-0,01
Occupation_2digit ISCO_53											-0,03																			
Occupation_2digit ISCO_54																														
Occupation_2digit ISCO_71																	-0,04		-0,02											
Occupation_2digit ISCO_72			-0,01	-0,02							-0,06		-0,02				-0,07				-0,02	-0,06								
Occupation_2digit ISCO_73			-0,05	-0,02			-0,76			-0,03	-0,14						-0,02				-0,05	-0,03								
Occupation_2digit ISCO_74			-0,03	-0,00		-0,02					-0,09										-0,05									
Occupation_2digit ISCO_75											-0,12																		-0,01	
Occupation_2digit ISCO_81		-0,01	-0,01		-0,04						-0,12						-0,07				-0,08	-0,05								-0,01
Occupation_2digit ISCO_82				-0,05							-0,05										-0,00									-0,06
Occupation_2digit ISCO_83																														
Occupation_2digit ISCO_91			-0,02								-0,07						-0,01													
Occupation_2digit ISCO_92											-0,01						-0,13													
Occupation_2digit ISCO_93				-0,03	-0,02						-0,11										-0,03									
Occupation_2digit ISCO_94											-0,04										-0,09	-0,01								
Occupation_2digit ISCO_95														-0,21															-0,01	-0,47
Occupation_2digit ISCO_96			-0,02								-0,05						-0,10				-0,01									

Table A.7: Comparison between the financial returns of men (upper bound) and women (lower bound)
Upper bound of men – lower bound of women (only negative values are displayed).

Country	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Age																														
Age2		-0,00	-0,00	-0,00	-0,00	-0,00			-0,00			-0,00	-0,00		-0,00		-0,00				-0,00	-0,00		-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00
Job_experience										-0,00																				
Job_experience2			-0,00		-0,00											-0,00						-0,00			-0,00		-0,00		-0,00	-
Education-ISCED_0_1_2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Education ISCED_3_4				-0,03																										
Education ISCED_5_6				-0,04																										
Education ISCED_7_8				-0,06																						-0,01				
Working_time Full_time	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Working_time Part_time		-0,03	-0,03	-0,03	-0,05	-0,06		-0,03				-0,02			-0,07		-0,02			-0,04		-0,01		-0,01	-0,00				-0,04	-0,02
Economic_activity_section NACE_B																														
Economic_activity_section NACE_C												-0,02																		
Economic_activity_section NACE_D																														
Economic_activity_section NACE_E																														
Economic_activity_section NACE_F																														
Economic_activity_section NACE_G												-0,04																		
Economic_activity_section NACE_H																														
Economic_activity_section NACE_I												-0,03	-0,05																	
Economic_activity_section NACE_J												-0,02																		
Economic_activity_section NACE_K												-0,03																		
Economic_activity_section NACE_L																			-0,00											
Economic_activity_section NACE_M																														
Economic_activity_section NACE_N												-0,07																		
Economic_activity_section NACE_O																			-0,01											
Economic_activity_section NACE_P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Economic_activity_section NACE_Q									-0,02			-0,01																		
Economic_activity_section NACE_R																														
Economic_activity_section NACE_S									-0,00			-0,01							-0,05							-0,05				
Employment_contract Indefinite		-	-	-	-	-	-	-	-	-		-							-					-	-		-	-	-	-
Employment_contract Temporary				-0,02	-0,01				-0,00															-0,03		-0,02				
Enterprise_control Private		-0,01													-0,01		-0,00													
Enterprise_control Public		-	-	-	-	-	-	-	-	-		-							-		-	-	-		-		-			
Enterprise_size E10_49			-0,01		-0,00	-0,01								-0,03	-0,01		-0,03			-0,00	-0,06					-0,05				
Enterprise_size E50_249	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Enterprise_size E250_499																														
Enterprise_size E500_999																														
Enterprise_size E1000																														

Country	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	IS	NO	CH
Occupation_2digit ISCO_11																							-0,05							
Occupation_2digit ISCO_12																							-0,10			-0,07				
Occupation_2digit ISCO_13	-0,03																						-0,17							
Occupation_2digit ISCO_14																														
Occupation_2digit ISCO_21																							-0,05	-0,03		-0,08				
Occupation_2digit ISCO_22																														
Occupation_2digit ISCO_23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-			
Occupation_2digit ISCO_24																							-0,04	-0,02		-0,05				
Occupation_2digit ISCO_25					-0,03															-0,02						-0,10			-0,01	
Occupation_2digit ISCO_26			-0,03																				-0,08	-0,05	-0,07	-0,04				
Occupation_2digit ISCO_31																								-0,02		-0,04				
Occupation_2digit ISCO_32		-0,04			-0,02									-0,04			-0,02			-0,07				-0,08	-0,01	-0,11				
Occupation_2digit ISCO_33																							-0,03							
Occupation_2digit ISCO_34					-0,03																		-0,14			-0,09				
Occupation_2digit ISCO_35					-0,03																					-0,07				
Occupation_2digit ISCO_41					-0,00									-0,05									-0,08	-0,05		-0,12				
Occupation_2digit ISCO_42																							-0,05		-0,01	-0,12			-0,01	-0,00
Occupation_2digit ISCO_43				-0,01	-0,09			-0,10											-0,01	-0,05			-0,03	-0,11	-0,02	-0,09			-0,06	-0,02
Occupation_2digit ISCO_44					-0,18															-0,07			-0,14	-0,19	-0,04	-0,23			-0,11	
Occupation_2digit ISCO_51																										-0,17				
Occupation_2digit ISCO_52																							-0,05			-0,08				
Occupation_2digit ISCO_53		-0,00						-0,03		-0,00				-0,00			-0,01				-0,01		-0,04	-0,02		-0,12			-0,02	
Occupation_2digit ISCO_54										-0,00			-0,17							-0,01			-0,06			-0,07				-0,01
Occupation_2digit ISCO_71			-0,06																				-0,02	-0,07	-0,01	-0,02				
Occupation_2digit ISCO_72							-0,23												-0,02				-0,05		-0,04	-0,03			-0,01	
Occupation_2digit ISCO_73																														
Occupation_2digit ISCO_74					-0,02																									
Occupation_2digit ISCO_75																							-0,01			-0,02				
Occupation_2digit ISCO_81																														
Occupation_2digit ISCO_82																-0,09														
Occupation_2digit ISCO_83																	-0,07				-0,01		-0,07		-0,02	-0,14			-0,04	-0,01
Occupation_2digit ISCO_91																							-0,05			-0,14			-0,02	
Occupation_2digit ISCO_92																-0,01							-0,05			-0,10				
Occupation_2digit ISCO_93																							-0,03			-0,10				
Occupation_2digit ISCO_94																							-0,02			-0,15			-0,00	
Occupation_2digit ISCO_95			-0,04	-0,00	-0,17	-0,50	-0,25			-0,70				-0,34							-0,30					-0,12				
Occupation_2digit ISCO_96																							-0,06			-0,15				

Appendix 2: National publications

This is an indicative list of publications at the national level on GPG decomposition.

Belgium: Institut pour l'égalité des femmes et des hommes, *L'écart salarial entre les femmes et les hommes en Belgique – Chiffres et changements dans la méthodologie 2019* (https://igvm-iefh.belgium.be/sites/default/files/rapport_ecart_salarial_2019.pdf).

Denmark: Det Nationale Forskningscenter for Velfærd, *Forskelle mellem kvinders og mænds timeløn* (https://www.vive.dk/da/udgivelser/forskelle-mellem-kvinders-og-maends-timeloen-6990/).

Germany: Statistisches Bundesamt, *Bruttostundenverdienste und Gender Pay Gap 2018 nach Bundesländer* (https://www.destatis.de/DE/Themen/Arbeit/Verdienste/Verdienste-Verdienstunterschiede/Tabellen/bgbp-stunden-laender-2018.html).

Netherlands: Centraal Bureau voor de Statistiek, *Monitor loonverschillen mannen en vrouwen, 2018* (https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjGw5iEg5jyAhUGLewKHVEKDIkQFnoECAUQAw&url=https%3A%2F%2Fwww.cbs.nl%2F-%2Fmedia%2F_pdf%2F2020%2F48%2Fmonitor-beloningsverschillen.pdf&usg=AOvVaw0i6zHJBbmhkr3TU2y4OWxd).

Austria: Statistik Austria, 'Gender Pay Gap. Analysen zum geschlechtsspezifischen Lohnunterschied', *Statistische Nachrichten 6/2021* (https://pic.statistik.at/wcm/idc/idcplg?IdcService=GET_PDF_FILE&dDocName=126258).

Sweden: Swedish National Mediation Office, *Löneskillnaden år 2020* (https://www.mi.se/publikationer/loneskillnaden-ar2020/).

Switzerland:

Bundesamt für Statistik, *Analyse der Lohnunterschiede zwischen Frauen und Männern anhand der Schweizerischen Lohnstrukturerhebung (LSE) 2018 – Schlussbericht* (https://www.bfs.admin.ch/bfs/de/home/statistiken/arbeit-erwerb/loehne-erwerbseinkommen-arbeitskosten/lohnniveau-schweiz/lohnunterschied.gnpdetail.2021-0499.html).

Bureau Fédéral de la Statistique, *Analyse des différences salariales entre femmes et hommes sur la base de l'enquête suisse sur la structure des salaires (ESS) 2018 – Rapport final* (https://www.bfs.admin.ch/bfs/fr/home/statistiques/travail-remuneration/salaires-revenus-cout-travail/niveau-salaires-suisse/ecart-salarial.assetdetail.17604125.html).

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Gender pay gaps
in the European Union
— a statistical analysis —

This publication analyses gender pay gaps in the European Union from a statistical perspective. In the first part of the study, we present the data source, the methodology and statistical software used by Eurostat to decompose the unadjusted gender pay gap as well as the results of this decomposition. Indeed, the unadjusted gender pay gap may result from (1) possible differences in pay between men and women, for 'equal work or work of equal value', but also from (2) differences in the average characteristics of men and women in the labour market and (3) different financial returns between men and women for a given characteristic. To measure the latter two effects, we have applied the statistical method known as the Blinder-Oaxaca decomposition on the microdata collected through the Structure of Earnings Survey 2018. In the second part of the analysis, we extend the scope to the whole population of men and women of working age. We measure differences in their average expected earnings and analyse the respective contributions of gender gaps in employment rates, in the number of hours worked and in hourly earnings (the unadjusted gender pay gap). We hope that this publication will help data users and policy makers to better interpret gender pay gaps in the European Union.

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