
Working Paper Series

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**ECINEQ WP 2014 - 347**

ECINEQ 2014 - 347
November 2014

www.ecineq.org

# From the glass door to the glass ceiling: An analysis of the gender wage gap by age groups*

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**Abstract**

Using 2009 EU-SILC data for France, Italy, the Netherlands and the United Kingdom, we decompose the gender wage gap for prime age workers. We adopt an age group approach to identify when and how the *glass door* and the *glass ceiling* effects arise and their persistency over time. The empirical results verify that the raw gender wage gap increases with age. In all considered countries, the *glass ceiling* effect is completely realized by the age of 30 and increases over time. French, Italian and British women have also to cope with the *glass door* as they enter the labor market.

**Keywords:** gender wage gap, labor force participation, wage decomposition, glass ceiling, glass door.

**JEL Classification:** C31, C49, J21, J24, J31, J71.

*We gratefully acknowledge the helpful comments of Paola Villa, Claudio Zoli and participants at AIEL (Pisa, September 2014), SIEP (Pavia, September 2014) and SIE conferences (Trento, October 2014).

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"*When you put all the pieces together, a new picture emerges for why women don't make it into the C-suite. It's not the glass ceiling, but the sum of many obstacles along the way*"
Eagly and Carli (2007: 62), *Women and the labyrinth of leadership*

## 1. Introduction

It is commonly acknowledged that women face a higher complexity of challenges than men during their working career path. The metaphor of the *labyrinth of leadership* suggested by Eagly and Carli (2007) is highly evocative about this issue. The scholars disentangle the complexity of the phenomenon by identifying two main obstacles, i.e., the *glass ceiling* and the *sticky floor* effects (Albrecht et al., 2003; Booth et al., 2003), which are generally associated with the existence of a gender difference in pay. Specifically, they analyze the wage distribution by gender and associate the evidence of a larger gender gap at the top quantiles with the *glass ceiling*, whereas a larger gap at the bottom quantiles is associated with the *sticky floor*. In their work, Hassink and Russo (2010: 14) argue that while the *glass ceiling* refers to gender differences in internal promotion, there might also exist gender differences in external hiring. They refer to such a phenomenon as *glass door* effect. They argue that "an interesting implication of the *glass door* is that it may reinforce the *glass ceiling*, so that the *glass ceiling* can be sustainable as an equilibrium phenomenon".

The presence of such barriers to female career accomplishments lowers their earnings prospects compared to men. This issue deserves great attention since it may have severe consequences, in the short and medium run, on female wages and, in the long run, on female pension entitlements and old age poverty. Although the observed gender pay gap has decreased in many countries in the last decades, its unexplained part - related to both empirical misspecification and pure discrimination - is stable (Weichselbaumer and Winter-Ebmer, 2005). A cross country report of the European Commission (1998) suggests a positive correlation between the gender wage gap and age. Ñopo et al. (2012) show that in Western Europe the average gender wage gap increases until 35 years old, while remaining almost constant for older workers. To the best of our knowledge, however, further empirical evidence on the evolution of the gender wage gap with age is still missing.

For this reason, the main objective of this work is to provide a comprehensive analysis of the determinants of the gender wage gap from an age group perspective. Indeed, a closer look at the gender wage gap across age groups allows a better understanding of *which* barriers women face over the life cycle, *when* they emerge and *how* women's career and wage advancements are affected.

The gender wage gap may originate at the very early career stages, because women face unfavorable contractual conditions or barriers to career advancements (i.e., because of the presence of the *glass door* effect), and extend over the life cycle, because the existence of unfavorable employment conditions that keep them stuck to the *sticky floor* or prevent them to outdo the *glass ceiling*. Based on these considerations, we carry out a cross country analysis that tests i) whether women face the *glass door* when they enter the labor market or at the very early career stages, ii) when the *glass ceiling* arises during the life cycle, iii) whether the gender wage gap within each age group depends on different attributes between men and women or on residual factors. We exploit the 2009 European Union Statistics on Income and Living Conditions data (EU-SILC, *Eurostat*) for France, Italy, the Netherlands and the United Kingdom. These countries differ considerably in terms of female labor market participation, relevance of part-time employment, welfare regime type and industrial and labor relations system. We define the age groups following the *Eurostat* classification of the Labor Force survey and distinguish between twenty-year-old (20-29), thirty-year-old (30-39), forty-year-old (40-49), and fifty-year-old (50-59) individuals. The empirical analysis takes place in three steps. First, in order to account for a possible sample selection problem, we estimate the female decision whether to participate or not in paid employment; second, we estimate a log-hourly wage equation for men and a selectivity-corrected log-hourly wage equation for women; third, we decompose the raw gender pay gap using the Neuman-Oaxaca technique (2004), which accounts for selection. The empirical analysis is carried out for each country both on the entire sample of prime age workers and, separately, on each age group.

We believe that our age group approach represents a valuable alternative to the quantile analysis and it entails some advantages. Male and female average wages tend to increase with age, but their dispersion increases as well because many older workers, especially women, are still low wage earners. Furthermore, male and female workers may reach the top of the wage distribution at different stages of the life cycle. By focusing on age groups instead of quantiles, we avoid the comparison between bottom earners and top earners belonging to different age groups. In addition, if the gender wage gap for twenty-year-old workers in 2009 depends on the current career opportunities in the job market, the gender pay differential for an older age group derives from the hoarded effect of barriers since their entry in the labor market. Thus, the age group approach partly isolates the effect of the labor market structure at the labor market entry on earnings prospects. Finally, younger women are relatively more educated than their older counterparts and have modern perspectives over their role within the family, both as mothers and housewives. Such a change in observed and unobserved personal characteristics are likely to affect both the labor market participation and individual earnings prospects.

The rest of the paper is organized as follows. Section 2 reviews the relevant literature. The data and the estimation methodology are described in Section 3 and 4, respectively. Empirical findings are presented in Section 5. Section 6 reports some robustness checks. Finally, Section 7 concludes.

## 2. Review of the Literature

More than 263 articles covered the issue of the gender wage gap in the period 1960s-1990s, finding a time decreasing raw pay gap and a stable unexplained gap (Weichselbaumer and Winter-Ebmer, 2005). For a recent review of this literature, please refer to Christofides et al. (2013), who also provide a cross country analysis of the *glass ceiling* and the *sticky floor* effects.

The *glass ceiling* is "the phenomenon whereby women do quite well in the labor market up to a point after which there is an effective limit on their prospects" (Albrecht et al., 2003: 146). This point might be placed at any point of the career path. The *sticky floor* describes "a situation arising when otherwise identical men and women might be appointed to the same pay scale or rank, but the women are appointed at the bottom and the men further up the scale" (Booth et al., 2007: 126). The empirical literature identifies the *sticky floor* and the *glass ceiling* effect by measuring the width of the gender wage gap across the wage distribution. Large differentials for low income earners are consistent with the *sticky floor* (Booth et al., 2003; Chi and Li, 2008), whereas large differentials for top earners are associated with the *glass ceiling* (Albrecht et al., 2003; Napari, 2009). Hassink and Russo (2010) focus on the *glass door*, which deals with gender differences along the hierarchical structure of jobs for new hired workers. While the *glass ceiling* and the *sticky floor* refers to gender differences in internal promotion or in wage change upon promotion, the concept of *glass door* deals with gender differences in the access to higher senior positions at the time of being hired.

The magnitude of the gender pay gap varies across countries, as it depends on the data sample and the estimation methodology applied. The empirical evidence for France, Italy, the Netherlands and the United Kingdom is a good example of this heterogeneity. For the sake of conciseness, we review only the literature that refers to these countries.

The 2005 pay differential in the EU-27, measured as the ratio between male and the female log-hourly wages, is about 15% (Zizza, 2013). At the country level, the same ratio falls to 6% in Italy and 14% in France, reaching 16% in the Netherlands and 25% in the United Kingdom (Arulampalam et al., 2007). In 2007, according to Christophides et al. (2013), the British and Dutch gaps remain stable, whereas the French one reduces to 7%. Unlike, in Italy the ratio increases up to 10%.

Christophides et al. (2013) find evidence of the *glass ceiling* effect in France. They also point out a significant male wage advantage and female wage disadvantage, after controlling for a large set of

individual, household and job related characteristics that explain only 26% of the gender pay gap. Differently, Meurs and Ponthieux (2006) find that between 1990 and 2002 around three-quarters of the gender pay differential in France is due to differences in job structures, mainly in working hours. Meurs, Pailhé and Ponthieux (2011) investigate the extent to which children and child related career interruptions affect the gender pay gap. They distinguish between women who have never taken child related time out from women who have experienced career breaks to take care of their children. They find that the pay differential between men and women who have never taken time out for childcare remains essentially unexplained after controlling for a large set of variables. They explain the result in terms of statistical discrimination.

Several empirical studies find a substantial and persistent *glass ceiling* effect in Italy (Addabbo and Favaro, 2011; Arulampalam et al., 2007; Christofides et al., 2013). Christofides et al. (2013) detect also a significant male wage premium and a female wage penalty. The negative sign associated with the explained part suggests that Italian women hold better characteristics than their male colleagues. According to Olivetti and Petrongolo (2008) and Pissarides et al. (2005), accounting for sample selection raises the gender pay gap, because of a positive selection in employment of Italian women. De la Rica et al. (2008) argue that countries with a sizeable selection effect, mainly related to a scanty labor market participation of low skilled women, exhibit a flatter gender wage gap mainly explained by a *glass ceiling* involving more educated women.

Christophides et al. (2013) find evidence of the *glass ceiling* effect also in the Netherlands, where men enjoy a wage premium and women undergo a wage penalty. Albrecht et al. (2009) find a positive and significant selection effect for Dutch full-time working women; moreover, they claim that the largest portion of the gender wage gap is due to differences in the returns to observed attributes between genders. Accounting for both full-time and part-time female workers, Van de Meer (2008) finds that at most one third of the gender pay gap is explained by differences in productivity, whereas the largest part depends on 'price' differences.

Labor market insiders and new entrants might face different barriers. Manning and Robinson (2004) explain the gender pay gap in the United Kingdom with the entrant gap and the share of entrants, which are mostly part-timers. Indeed, British part-time employees are mainly segregated in feminized sectors where earning possibilities are lower (Matteazzi et al., 2014; Mumford and Smith, 2009). In addition, Arulampalam et al. (2007) argue that the United Kingdom exhibits the largest evidence of the *glass ceiling*. Accordingly, Christofides et al. (2013) find an increasing *glass ceiling* effect along the wage distribution, a significant male wage premium and also a female wage penalty.

It is worth pointing out that the magnitude of the gender wage gap is strictly related to macro institutional variables, like welfare policies and type of wage setting institutions. Indeed, the type of welfare state and industrial and labor relations system matter in explaining the gender wage gap because they shape the size and the nature of the gender earnings differential (Blau and Khan, 2003; Daly et al., 2006; Olivetti and Petrongolo, 2008; Rubery et al., 2005). According to Christofides et al. (2013), also the size of the unexplained part of the gender pay gap is systematically related to policies and institutions.

## 3. Data and age-group approach

The data used in this study come from the EU-SILC (*Eurostat*) for 2009. This survey collects extensive comparable cross-sectional and longitudinal data both at the household and individual level for all 27 (in 2009) EU Member States. We exploit the 2009 cross-sectional wave of the survey[1] because it makes available the information on 2008 labor earnings, which are the last available information on earnings before the recent Great Recession. Indeed, it is well known in the literature that recessions and subsequent sustained downturns influence women's labor market attachment and the pattern of gender segregation, with important consequences on the gender pay gap (Rubery, 1988; Rubery and Rafferty, 2013)[2].

We focus on a sample of individuals living in France, Italy, the Netherlands and the United Kingdom. Since wage progression mainly occurs during the so called 'prime aged period', we include men and women aged 20-59. Students, unemployed, self-employed, family workers, disable and retired people are excluded[3]. The share of both inactive and part-time men is negligible (respectively, 3.5% and 3.4%), therefore they are excluded too; on the other hand, we include inactive women to account for female selection into employment. The sample size ranges from 4,285 observations for the United Kingdom to 10,231 for Italy, for a total of 23,886 individuals. Following the *Eurostat* classification, we distinguish between twenty-year-old (20-29), thirty-year-old (30-39), forty-year-old (40-49), and fifty-year-old (50-59) individuals.

[1] We exploit the cross-sectional data, instead of the longitudinal ones, because they disclose more information on working conditions. In particular, the variables *firm size*, *being in a managerial position with supervisory responsibility* and the *economic sector*, which play a crucial role in explaining individual earnings and the gender pay gap, are available only in the cross-sectional dataset.

[2] Men and women exhibit a different degree of vulnerability during recessions because of their different positions in the labor market, social norms and gender division of labor within the household. However, the study of the effect of financial crises on the gender wage gap goes beyond the scope of this work.

[3] Self-employed are generally excluded from this type of analysis (Albretch et al., 2003; Christofides et al., 2013; Meurs et al., 2011). Their inclusion would raise concerns about the selection of workers into dependent work (other than into employment), which goes beyond the scope of this work. Regarding unemployment, we assume that it is a constraint on individual choice caused by labor market rationing. To explore the consequence of the removal of this assumption we perform a robustness check (see Section 5) by including those women that self-declare to be unemployed but not actively looking for a job into the pool of voluntary non participant women together with inactive women.

The four selected countries are representative of the European heterogeneity in terms of female labor market participation, incidence of part-time employment, size of the gender wage gap, and labor market structure[4]. Furthermore, they represent different welfare regime types. According to the Esping-Andersen's (1990) classification, the United Kingdom is a typical example of liberal welfare regime characterized by minimal means-tested assistance, modest universal transfers, little redistribution of incomes and a strong reliance on market mechanisms. France is a typical example of conservative welfare regime where redistribution is higher than in the liberal one. In Esping-Andersen's original classification, Italy also is a conservative regime; however, several authors (Ebbinghaus, 1998; Ferrera, 1996; Leibfried, 1992) consider Italy, as well as the other Mediterranean countries, as a sub-type of conservative welfare state because the country shows a limited social insurance coverage and a strong 'familialist' tradition. Esping-Andersen (1990) originally ascribes the Netherlands to the social-democratic welfare regime type, characterized by a system of generous universal and highly distributive benefits. Differently, Korpi and Palme (1998) consider the Dutch welfare system as liberally oriented, whereas Visser and Hemerijck (1997) include the Netherlands among the conservative welfare states. Several authors (Esping-Andersen, 1999; Shalev, 1996; Wildeboer Schut et al., 2001) argue that the Dutch welfare system is rather an hybrid case, hardly fitting a specific regime type because it is a mix of social-democratic, liberal and conservative characteristics.

Our variable of interest is the individual gross hourly wage, computed from the available information on annual labor earnings, weekly working hours, and months spent in paid employment. EU-SILC provides information on the gross employee cash or near cash annual income in the main and any secondary or casual jobs, before tax and social contributions are deducted[5]. Gross employee annual income refers to the income reference period, that in general corresponds to the calendar year preceding the interview. Regarding the working schedule, we have information on the number of hours usually worked per week at the time of the interview including also overtime, either paid or unpaid, and the number of months spent in employment and inactivity during the income reference period. The gross hourly wage is computed as the ratio between gross monthly earnings (employee gross cash or near cash annual income divided the number of months spent in paid employment) and the number of hours usually worked per month (recalculated from

[4] An extension of the analysis to other European countries is currently unfeasible due to: i) very high non response rate for workplace variables (especially for Northern European countries); ii) small sample size (less than 100 observations per age group), which threatens statistical representativeness and the respect of the asymptotic properties of the estimators.

[5] It includes wages and salaries, usual paid overtime, tips and commission, supplementary payments, profit sharing or bonuses paid in cash, additional payments based on productivity, etc.

the number of weekly hours)[6]. There might be a lag between the end of the income reference period and the time of the interview, which could weaken the match between labor income (that refers to a past period) and the number of hours usually worked per week (that refers to the current situation). To limit this inconsistency we consider only those workers who remained stable in their working status and in their job over the year. Furthermore, to ensure consistency between declared labor earnings and job related characteristics, we drop workers holding more than one job.

Table 1 shows the proportion of women working as employees, mean hourly wages and the raw gender wage gap by country and age group. Female employment is very heterogeneous across countries and age groups. Whatever the age group, Italy is bringing up the rear: female workers in the age group 20-29 are only 66.5%, gradually decreasing to 48.5% for the over 50. The largest employment rate for the twenty-year-old women is observed in the Netherlands, where it is around 87%. The United Kingdom displays the highest employment rate of women over 50[7]. As for the hourly earnings, the Dutch wages are the highest for both men and women. The gender wage gap is the difference between male and female earnings expressed as a percentage of female earnings. In all countries, men earn more than women. The only exception is represented by Dutch 20-29 years old women who earn slightly more than their male colleagues. The magnitude of the gap varies substantially across countries and age groups. The largest differentials are in the United Kingdom and the smallest ones in Italy. The most striking evidence is the widening of the gender wage gap over the age groups. In France, the Netherlands and the United Kingdom, there is a sharp increase of the pay gap with age; interestingly, in Italy the gap peaks in the 40-49 age group.

To assess a comparison with the quantile approach, Graph 1 shows the hourly wage distributions by country, gender and age group. Not surprisingly, the older is the worker, the higher is the wage. Indeed, the wage distribution of older workers lies always above the wage distribution of the youngest ones. However, male wages rise faster than the female ones: in all countries the wage distribution of the thirty-year-old men overlaps and even lies above the wage distributions of the forty and fifty-year-old women. Based on this evidence, we believe that, compared to the quantile approach that pools all workers in a unique wage distribution whatever their age, our approach has

[6] To reduce the influence of extreme values, we dropped the top and the bottom one percent of the wage distribution.

[7] It is worth pointing out that our shares of women in employment are not comparable to the employment rates as defined by Eurostat (1998). Eurostat measures the employment rate as persons in employment as a percentage of the working-age population, the latter including employed, inactive, unemployed people, students, and other individuals considered to be able and likely to work. Indeed, in Table 1 we show the percentage of employed women among the population of women either employed or inactive. Also our definition of employed individual differs from the definition adopted by Eurostat. According to Eurostat Labor Force Survey statistics, employed persons include (a) persons who during the reference week worked for at least one hour for pay or profit or family gain; (b) persons who were not at work during the reference week but had a job or business from which they were temporarily absent. Unlike Eurostat, we define an individual as employed if she self-declares to have received a gross employee cash or near cash annual income during the reference period and to hold that same job at the time of the interview.

the advantage of grouping individuals which are more comparable in terms of i) labor market conditions when they entered the labor market, ii) educational background and, iii) social norms and attitudes. Thus, we believe that the age group approach partly isolates the effect of unobserved heterogeneity, labor market and business-cycle conditions at the time of labor market entry on employment prospects and earnings.

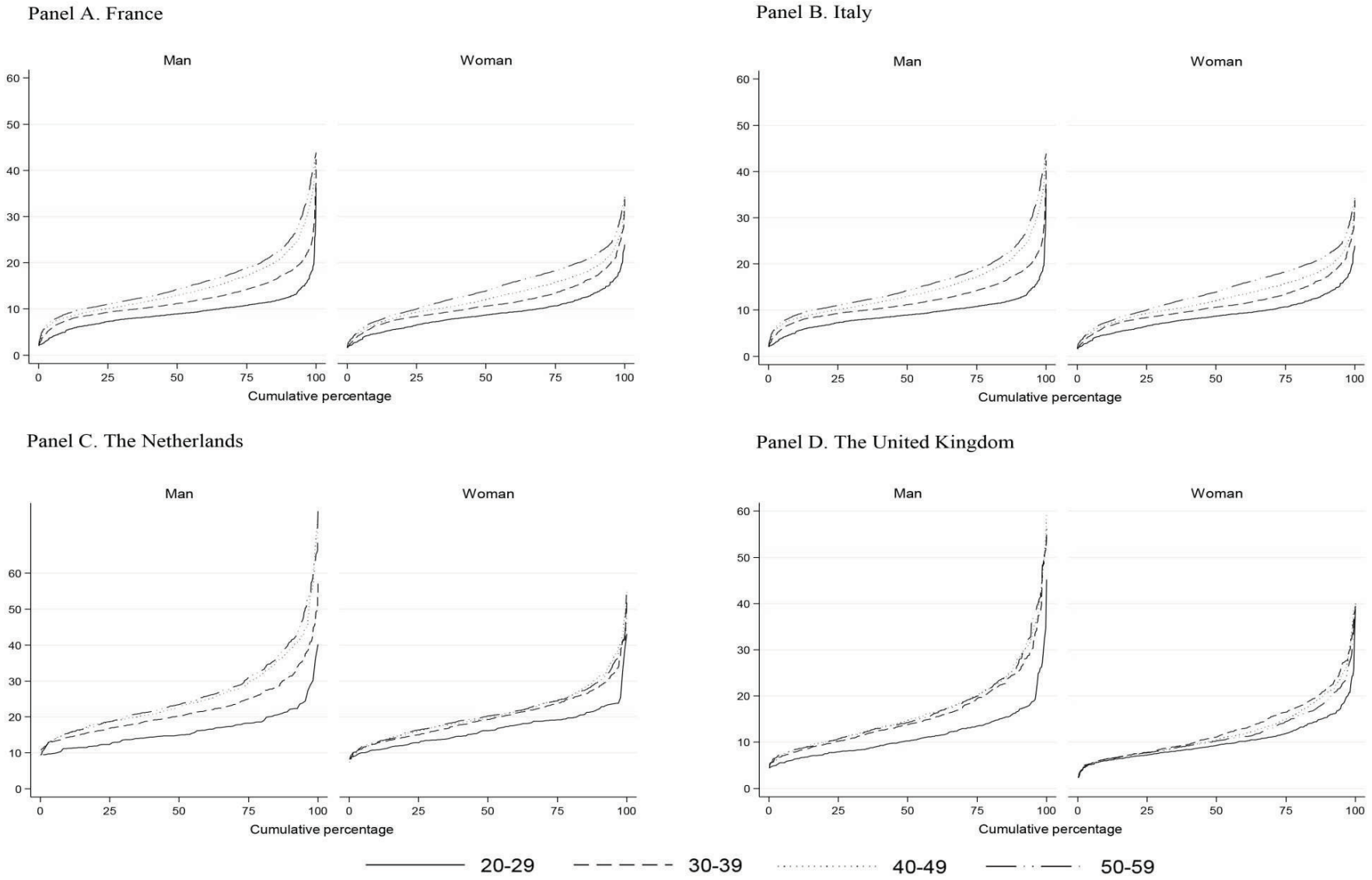
**Table 1.** *Female participation rate and hourly wages by country and age group*

| Country | Age Group | Employed women (%) | Hourly wage | | |
|---|---|---|---|---|---|
| | | | Male | Female | Wage gap (%) |
| France | 20-29 | 86.1 | 11.49 | 10.95 | 4.93 |
| | 30-39 | 85.4 | 14.69 | 12.52 | 17.33 |
| | 40-49 | 88.1 | 15.54 | 13.22 | 17.55 |
| | 50-59 | 83.2 | 16.53 | 13.78 | 19.96 |
| Italy | 20-29 | 66.5 | 9.16 | 8.94 | 2.46 |
| | 30-39 | 62.5 | 12.07 | 11.27 | 7.10 |
| | 40-49 | 61.5 | 14.41 | 12.70 | 13.46 |
| | 50-59 | 48.5 | 15.78 | 14.46 | 9.13 |
| The Netherlands | 20-29 | 86.8 | 16.23 | 16.66 | -2.58 |
| | 30-39 | 80.7 | 21.87 | 20.20 | 8.27 |
| | 40-49 | 77.1 | 25.42 | 21.18 | 20.02 |
| | 50-59 | 58.8 | 26.23 | 21.12 | 24.20 |
| The United Kingdom | 20-29 | 76.5 | 11.33 | 10.23 | 10.75 |
| | 30-39 | 73.3 | 15.90 | 12.93 | 22.97 |
| | 40-49 | 84.6 | 16.82 | 12.26 | 37.19 |
| | 50-59 | 88.2 | 16.78 | 11.71 | 43.30 |

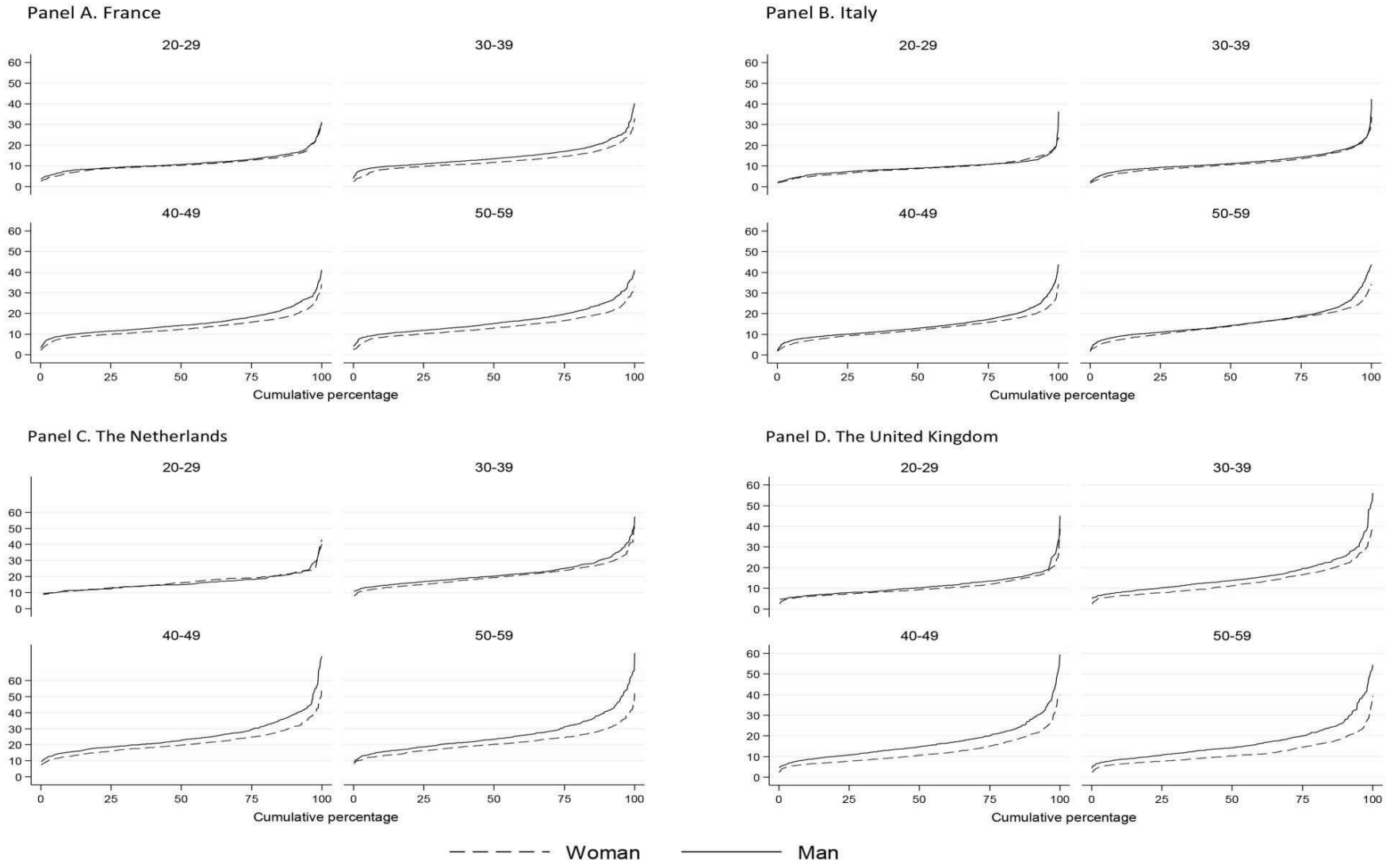
NOTES - Own calculations from EU-SILC data.

Graph 2 plots the gender hourly wage distributions by age group and country. As for the youngest age group (top-left quadrant of each panel), in France, Italy and the Netherlands the male and the female wage distributions almost overlap; in the United Kingdom the male wage distribution lies slightly above the female one. As for the other age groups, men earn more than women along the whole distribution and the distance between the male and female curves increases with age. We also observe an increasing distance between the male and the female wage distributions at the top, suggesting a larger gap among top earners than among bottom earners. Italy stands out from other countries in two respects; the male and female wage distributions almost overlap also for workers over 30 and the wage distribution of men and women over 40 years old are always very close in the middle segments, while they slightly diverge for both the top and the bottom earners.

**Graph 1.** *Country and age group hourly wage distributions, by gender*



**Graph 2.** *Country and gender hourly wage distributions, by age group*



The cross country difference in male and female wage distributions is usually related to the country-specific industrial and labor relations system. According to Hall and Soskice (2001), the United Kingdom is a typical example of liberal market economy: firms rely on competitive markets to coordinate with other economic actors, trade unions are rather weak, employment protection is low and labor turnover is high. Furthermore, wage setting is highly decentralized and primarily a matter of contract between employers and employees. Differently, France, Italy and the Netherlands are coordinated market economies where firms rely primarily on strategic modes of coordination, trade unions are influent, employment protection is high and job tenures are rather long. In these countries the wage bargaining process takes place mainly in the sector-based or industrial level. Some scholars claim that high levels of bargaining coverage and union density, together with a more coordinated bargaining between trade unions and employers associations, compress the wage distribution and reduce earnings inequality (Blau and Khan, 2000; European Commission, 2008, 2010; Rubery et al., 2002). Graph 2 shows that the gap between male and female earnings for the over 40 is larger in the Netherlands and the United Kingdom. This evidence could be related to the diffusion of female part-time employment in these countries, especially among women aged between 40 and 49. As shown in Tables A1-A2 in the Appendix, the share of forty-year-old part-timers ranges from 23% in Italy to 82% in the Netherlands; also in the United Kingdom part-time employment is widespread. The degree of job segregation is also very likely to play a major role: more men than women are employed in a managerial position with supervisory responsibility, which is associated with higher wages. The descriptive statistics support this argument: except for Italy, men are overrepresented in best paid occupations and best rewarded sectors of the economic activity such as construction, information, communication, financial and insurance activities. On the contrary, women are more likely to be employed in education, human health and social work activities, where earnings prospects are lower.

## 4. Methodology

### *4.1 The empirical strategy*

The empirical analysis proceeds by steps. First, we model the female decision whether to participate or not in paid employment. Second, we estimate the wage equations for male and female workers. Third, we decompose the gender wage gap using the Neuman-Oaxaca (2004) procedure. The empirical analysis is performed, separately, for each country and for each age group.

The female participation choice (i.e., working as employee or being inactive) depends on some observed attributes (e.g., human capital level) but also on several unobserved characteristics (e.g., motivation, ability, effort and commitment) that affect both the decision to work and the individual

earnings prospects. Following Heckman's (1979) two-step analysis, in the first stage we estimate a probit participation equation and in the second stage we estimate a selectivity-corrected wage equation by Ordinary Least Squares (OLS):

$$(1)\ y_g^j = X'\beta_g^j + \delta_g^j \lambda_g^j + \varepsilon_g^j,$$

where gender is denoted as *j = (male, female)* and age groups as *g = (20-29, 30-39, 40-49, 50-59)*. The outcome variable $y_g^j$ is the logarithm of the gross hourly wage. The vector $X$ includes exogenous independent variables and $\beta_g^j$ is the associated vector of parameters. $\lambda_g^j$ is the selection-correction term computed from first stage estimates[8] and $\delta_g^j$ is the associated parameter[9]. As for men, the selection-correction term is not included in the log-hourly wage equation because we do not account for male participation in employment given that the share of inactive men is negligible. The error term $\varepsilon_g^j$ is assumed to be normally distributed with mean 0 and variance $\left(\sigma_g^j\right)^2$.

In the third stage of our analysis, we decompose the gender wage gap using the Neuman-Oaxaca procedure (2004), accounting for selectivity:

$$(2)\ \bar{y}_g^m - \bar{y}_g^f = \left[\left(\bar{x}_g^m - \bar{x}_g^f\right)\hat{\beta}_g^*\right] + \left[\bar{x}_g^m\left(\hat{\beta}_g^m - \hat{\beta}_g^*\right) + \bar{x}_g^f\left(\hat{\beta}_g^* - \hat{\beta}_g^f\right)\right] + \left[-\hat{\delta}_g^f \bar{\lambda}_g^f\right]$$

where $\bar{y}_g^j$ are the predicted mean log hourly wages, $\bar{x}_g^j$ and $\bar{\lambda}_g^j$ are, respectively, the mean vectors of workers' characteristics and selection-correction terms, $\hat{\beta}_g^j$ and $\hat{\delta}_g^j$ are the estimated returns to wage determinants, and $\hat{\beta}_g^*$ is the nondiscriminatory wage structure obtained from a pooled regression of both male and female workers by age group (Neumark, 1988).

The Neuman-Oaxaca (2004) procedure divides the pay gap into three components. The *explained part*, i.e. $\left[\left(\bar{x}_g^m - \bar{x}_g^f\right)\hat{\beta}_g^*\right]$, refers to the share of the pay differential due to different observable characteristics between male and female workers, as the human capital endowment. The

[8] As in Heckman (1979), the selection-correction term is computed as: $\lambda_g^j = \phi\left(w'\hat{\gamma}_g^j\right)/\Phi\left(w'\hat{\gamma}_g^j\right)$, where $\phi$ is the normal density function, $\Phi$ is the normal cumulative distribution function, $w$ is a vector of covariates and $\hat{\gamma}_g^j$ are the vector parameters of the probit model.

[9] In equation (1), $\delta_g^j = \sigma_j^g \rho_j^g$ is the parameter associated with the selection-correction term, where $\rho_j^g$ is the correlation between the error terms in the selection and the outcome equations. If $\delta_g^j$ is significantly different from zero, the employment status is endogenous, i.e. the error term in the selection and the wage equations are correlated.

*unexplained part*, i.e. $\left[\bar{x}_g^m\left(\hat{\beta}_g^m - \hat{\beta}_g^*\right) + \bar{x}_g^f\left(\hat{\beta}_g^* - \hat{\beta}_g^f\right)\right]$, refers to the share of the wage differential due to different returns to identical characteristics. All other things being equal, same characteristics may have different rewards between men and women due to employers' discrimination, unobserved heterogeneity or omitted relevant variables. The existence of wage penalty or premium is captured by the difference between individual returns, i.e. $\hat{\beta}_g^j$, and nondiscriminatory rewards, i.e. $\hat{\beta}_g^*$. If $\hat{\beta}_g^j > \hat{\beta}_g^* \left(\hat{\beta}_g^j < \hat{\beta}_g^*\right)$ then gender $j$ enjoys (undergoes) a wage premium (penalty). Finally, the *selection part*, $\left[-\hat{\delta}_g^f \bar{\lambda}_g^f\right]$, is the share of the raw pay differential due to the selection of women into employment.

*4.2 Explanatory variables in selection and outcome equations*

The exogenous variables included in the estimation of equation (1) are a) *human capital indicators*, b) *individual and household characteristics*, and c) *workplace characteristics*[10].

As for *human capital indicators*, we include the highest educational level attained. We distinguish between i) at most lower secondary (reference category), ii) at most upper secondary, and iii) tertiary education. Except for the United Kingdom, information about real labor market experience is also available[11].

The *individual and household characteristics* include the nationality (dummy variable equal to 1 if the country of birth is the same of residence), the partnership status (dummy equal to 1 if the individual lives in couple, either married or cohabiting, and 0 otherwise), the number of children by age group (we distinguish between children aged 0-2, 3-5, 6-11, and older than 12), the region of residence[12], and the degree of urbanization of the area of residence (dummy variable equal to 1 if living in a densely populated or intermediate area, 0 if living in a low populated area).

Finally, the set of *workplace characteristics* consists on the number of persons working at the local unit (dummy variable equal to 1 if the local unit has more than 11 employees, 0 otherwise)[13], the type of contract (dummy variable equal to 1 if she has a permanent contract and 0 otherwise)[14], being in a managerial position (dummy variable equal to 1 if the individual has a supervisory responsibility, 0 otherwise), the occupation (six dummies coded under the ISCO-88 (COM)

[10]Please refer to Tables A1-A2 in the Appendix for a detailed descriptive statistics of our variables of interest.

[11] EU-SILC does not provide information on current job tenure. However, the latter only marginally contributes to the gender wage gap (Blau and Kahn, 2000; Meurs and Ponthieux, 2006).

[12]This information is not available for the Netherlands and the United Kingdom. For France and Italy we have, respectively, eight and five regional dummies.

[13] According to Eurostat definition, the local unit is an enterprise of a part of thereof (e.g., a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place where the job is mainly carried out.

[14]This information is not available for the United Kingdom.

International standard Classification of Occupations)[15], the sector of economic activity (nine dummies coded according the NACE Rev. 2 Statistical Classification of Economic)[16], and being employed part-time (dummy variable equal to 1 if employed part-time, 0 if full-time)[17].

The same set of variables related to *human capital* and *individual and household characteristics* are included also in the female participation equation (the first stage of our analysis). As exclusion restrictions[18], we include the annual amount of non labor income (including income from rental of a property or land, interest, dividends, profits from capital investments in unincorporated business, housing allowances, alimonies) and partner's annual labor (the variable takes zero value for single women). These two income related variables are common exclusion restrictions in the female labor supply literature (Blundell and MaCurdy, 1999; Blundell et al., 2007). In addition, we control for the presence of elderly people in bad and very bad health conditions because the literature provides evidence that caring for parents, either co-resident or living outside the household, negatively affects female labor supply (Charmicael and Charles, 1998, 2003; Ettner,1996; Heitmueller, 2004; Johnson and Lo Sasso, 2000). Finally, empirical findings suggest that extended families and grandparents' support play a key role in explaining labor force participation of mothers (Baizan et al., 2002; Chiuri, 2000; Del Boca, 2002). Therefore, we include among the exclusion restrictions a dummy variable that indicates the availability of non-parental (informal) unpaid childcare for children under 12[19].

### *4.3 Definitions of glass door and glass ceiling*

Before presenting the results of our analysis, it is worth clarifying how we define and measure the *glass door* and the *glass ceiling*. Despite we do not perform a quantile analysis, we believe that there is a way to detect such obstacles to female career accomplishments by looking at some key variables. According to Hassink and Russo (2010) the *glass door* effect deals with gender differences, for *new hirees*, in the chances to be hired at higher hierarchical levels. Our definition

[15]Categories: 1 = legislators, senior officials and managers, professionals (reference category); 2 = technicians and associate professionals; 3 = clerks; 4 = service workers, shop and market sellers; 5 = skilled agricultural and fishery workers, craft and related trades workers, plant and machine operators and assemblers; 6 = elementary occupations.

[16]Categories: 1 = agriculture forestry and fishing, mining and quarrying, manufacturing electricity, water supply (reference category); 2 = construction, transport and storage; 3 = wholesale and retail trade; 4 = accommodation and food services activities; 5 = information and communication, financial and insurance activities; 6 = real estate activities, professionals, administrative and support service activities; 7 = public administration and defence, compulsory social security; 8 = education, human health and social work activities; 9 = arts, entertainment and recreation, other service activities, activities of households as employers, activities of extraterritorial organizations and bodies.

[17]This variable takes only zero value for men. Indeed, we excluded part-time male workers from our analysis because of the very limited number of men in part-time jobs.

[18]Exclusion restrictions affect the individual reservation wage and therefore the individual participation decision, but not the individual market wage rate (Heckman, 1979). Such exclusion restrictions, together with the normality assumption, allow the identification of the wage equation.

[19]According to EU-SILC Guidelines (2010), unpaid childcare includes childcare by grand-parents, others household members (outside parents), other relatives, friends or neighbors.

differs from the one of Hassink and Russo because we have information only for insiders. We define the *glass door* as the presence of unfavorable contractual conditions or barriers to wage and career advancements for women at the very early career stages, when they should gamble on a par with their male counterpart. From an empirical perspective, we associate the *glass door* with the evidence of one or more of the following conditions, after controlling for a large set of individual, household and job related characteristics:

- an overrepresentation of female workers aged 20-29 into temporary contract jobs
- an underrepresentation of female workers aged 20-29 into high status jobs and/or managerial positions
- the existence of a wage penalty for female workers aged 20-29.

It is worth pointing out that our definition of *glass door* refers only to individuals aged 20-29, i.e., young people that are likely to be at the beginning of their working career. In this respect, they can be seen as *new entrants* in the labor market.

As for the *glass ceiling* effect, we adopt the definition provided by Albrecht et al. (2003) according to which the *glass ceiling* is the phenomenon whereby women encounter some barriers, during the life course, that limit their career prospects. From an empirical perspective, Albrecht et al. (2003) measures the *glass ceiling* effect looking at the distance between male and female wage distributions among earners falling in the top quantiles. Unlike them, we associate the *glass ceiling* effect with the evidence of at least one of the following conditions, after controlling for a large set of individual, household and workplace characteristics:

- an underrepresentation of women aged over 30 in managerial positions
- an underrepresentation of women aged over 30 in high status occupations,

both being a proxy of the difficulties experienced by women in accessing to more senior job positions during their career path.

## 5. Results

For each country, we present the results obtained using the entire sample of prime age individuals[20] and the age-based subsamples.

[20] In estimating female participation in employment and male and female log-hourly wages for the entire sample of prime age workers, we also control for a second order polynomial of individual age, given that female participation in paid employment is really heterogeneous between age groups and wages progress with age. Differently, age and age squared are not included in the analysis based on age groups because focusing on age groups is an indirect way to control for individual age. However, for the sake of completeness, we have also estimated another specification of the model including a second order polynomial of age in the age group analysis. Returns to age are generally not significant. Decomposition results are robust to those presented in Section 5 and are available from the authors upon request.

*5.1 First step: participation equation*

The marginal effects on the response probabilities of the probit estimation are presented in Tables A3-A6 in the Appendix.

As regards the entire sample of prime age women (first column in Tables A3-A6), in all countries women's probability of working increases with the education level. The effect is larger in Italy, where female participation in paid employment is low. The employment status strongly depends on the family structure and composition. In Italy and the Netherlands, women living in couple are less likely to participate in paid employment than singles. The effect is larger in Italy where the traditional male bread-winner household model seems to be more deeply rooted than in the other countries (Anxo et al., 2007). The presence of children reduces the probability of being employed, especially where they are younger than 5. In Italy and the United Kingdom also the presence of elderly people in bad or very bad health conditions reduces the probability of working. In line with the literature, the household non labor income and the partner's labor income negatively affect the probability of being employed (Apps et al., 2012; Ashenfelter and Heckman, 1974; Blundell et al., 2007; Heckman and Willis, 1977). In all countries, the availability of unpaid childcare increases female participation in employment (Chiuri, 2000)[21]. The largest positive effect of the unpaid childcare is pointed out in Italy, a country with a strong familial tradition (Ebbinghaus 1998; Ferrera 1996; Leibfried 1992).

The empirical results based on the age group analysis are robust to those obtained over the entire sample of prime age women, even though the magnitude of the marginal effects greatly differs by age group. For instance, in Italy the magnitude of the education effect increases over the age groups, suggesting that participant and non participant women exhibit large differences in terms of educational level when female employment is low. Whatever the country, the partnership status does not significantly affect the employment probability of women aged 20-29 and 30-39, except for Italy where the negative effect of living in couple is significant also for women aged 30-39. This evidence may be indicative of a gradual substitution of the male bread-winner model with the dual-earner family model. The magnitude of the negative effect associated with children younger than 5 is larger for women aged 20-29 and 30-39, which reasonably experience their first-birth[22]. Unlike in the other countries, in Italy the negative effect of children on female employment decisions reduces as women get older and the smaller is the negative effect associated with children, the larger is the positive effect related to the unpaid childcare. This evidence points out, once more, that the family

[21] Chiuri (2000) finds that monetary and non monetary grandparents' support positively affects the participation of Italian mothers in the labor market. Similar results are found by Del Boca (2002) and Del Boca et al. (2005) for Italy, France and the United Kingdom.

[22] The transition to motherhood is a key life course event that as a higher impact on woman's choices than higher order births (Elder, 2003; Rindfuss et al., 1988).

network plays a key role as childcare provider and maternal employment support in this country. Differently, in the other countries women continue to work in the labor market even when they become mothers, possibly opting for a part-time job that help them to manage the trade-off between family and work responsibilities (Anxo et al., 2007).

As for the exclusion restrictions, we find that the sign of the marginal effects are consistent across countries and age groups, although their magnitude differs. This make us confident about the selection equation.

*5.2 Second step: wage equation*

Tables A7-A10 show the estimation results of male and female log-wage equations. Male workers' wage is positively affected by the educational level, and the presence of children is associated with a father's pay premium. Similar results have been found by Hersch and Stratton (2000) and Lundberg and Rose (2000, 2002). Interestingly, as in Blackburn and Korenman (1994) and Korenman and Neumark (1991), we verify a married men's premium in all countries, especially in the 20-29 and 50-59 age groups. Holding a managerial position with supervisory responsibility, working in a big firm and having a permanent contract are associated with an increase in male wages. With respect to professional and managerial occupations, when the coefficients are significant, other occupations exhibit lower wage returns, especially those at the bottom of the occupational ladder. The sector of the economic activity provides heterogeneous results: we find higher rewards in sectors related to information, communication, financial and insurance activities rather than in agriculture, water supply, and manufacturing. The rewards are lower in female dominated sectors, such as accommodation and food services, education, health and social activities.

As for female wages, the return to education increases with the level attained. Unlike men, when results are significant, children negatively affect women's earnings, especially in the United Kingdom. Surprisingly, in the United Kingdom and in the Netherlands the number of children aged 0-2 is associated with a wage increase for 20-29 year old women. This result could be related to wage enhancing unobservable characteristics, for which we do not control for, held by young mothers, even more if highly educated, who return to work when children are toddler. It is plausible that women aged 20-29 experience their first birth and if they return quick to their job then they could benefit from a good job match and prior stock of firm-specific capital, other than an almost continuous career profile (Anderson et al., 2003).

Also for female workers, being in a managerial position with supervisory responsibility, working in a big firm, having a permanent contract, and being at the top of the occupational ladder positively

impacts the wage. Once again, with respect to agriculture and constructions, the rewards are higher in sectors related to information, communication, finance and insurance. While in Italy those sectors with a high prevalence of public employment, such as public administration, defense, education, human health and social services, show higher wage returns than the reference category, the opposite holds in the other countries. In Italy and the United Kingdom, part-time jobs negatively affects women's wages for those over 40. The negative effect is larger in Italy, where part-time is still quite atypical because of trade union opposition and some disincentives for employers, such as fixed costs per employee whether the employee works full-time or part-time (Del Boca, 2002). In the United Kingdom a significant selection effect is pointed out since the age of 40, while Dutch women are positively selected in the labor market only between 30 and 39 years old.

*5.3 Third step: wage gap decomposition*

Tables 2-5 show the results of the wage gap decomposition analysis by country. For the entire sample of prime age workers and for each age group we present both the *raw* difference between predicted male and female log-hourly earnings and the *adjusted* difference that accounts for the selection effect[23].

Focusing on the entire sample of prime age workers, we find that sample selection significantly biases the wage gap estimates as in Olivetti and Petrongolo (2008). In Italy, the Netherlands and the United Kingdom, the adjusted difference is larger than the raw one, suggesting that women are positively selected in the labor market. The opposite pattern is observed in France. In all countries, women undergo a wage penalty after controlling for a large set of individual, household and workplace characteristics. Italy stands out for a negative explained part: given their characteristics, women should earn more than men. Indeed, on average, they are more educated than males and are employed in relatively well paid and high status occupations and sectors. Italian women are those who undergo the largest wage penalty among the selected countries. In France, the Netherlands and the United Kingdom women are largely employed in low paid sectors and are less likely to be promoted in managerial positions, widening the gender wage gap. Furthermore, in the United Kingdom women are also largely segregated into poor status occupations.

Focusing on age groups, the most striking evidence is the widening of the gender wage gap over time, observed in all countries. Only in Italy we observe a gender pay gap for the fifty-year-old workers that is lower than the gap for the forty-year-old workers[24].

[23]The *adjusted* difference is computed as the difference between the raw wage gap ($\bar{y}_g^m - \bar{y}_g^f$) and the selection part $\left(-\hat{\delta}_g^f \bar{\lambda}_g^f\right)$ in equation (2).

[24] We have performed a t-test to check whether the raw gender pay gap for each age group is statistically larger than the raw gender pay gap of the preceding age group. If the difference is statistically significant, the gender pay gap

In France (Table 2), the average male wage is always significantly larger than the female one, the pay gap increases with age, and a female wage penalty is pointed out across all the age groups.

**Table 2.** *Decomposition analysis for France*

| Age group | 20-59 | 20-29 | 30-39 | 40-49 | 50-59 |
|---|---|---|---|---|---|
| Male log hourly wage | 2.635*** | 2.386*** | 2.628*** | 2.676*** | 2.734*** |
| | (0.007) | (0.015) | (0.011) | (0.012) | (0.013) |
| Female log hourly wage | 2.484*** | 2.324*** | 2.454*** | 2.513*** | 2.550*** |
| | (0.007) | (0.018) | (0.016) | (0.012) | (0.013) |
| Difference | 0.151*** | 0.062*** | 0.174*** | 0.163*** | 0.184*** |
| | (0.010) | (0.024) | (0.019) | (0.017) | (0.019) |
| Adjusted difference | 0.132*** | 0.074** | 0.150*** | 0.153*** | 0.279*** |
| | (0.015) | (0.030) | (0.032) | (0.029) | (0.070) |
| *Explained part*: | | | | | |
| Individual characteristics | -0.007*** | -0.016*** | -0.003 | 0.002 | 0.001 |
| | (0.003) | (0.006) | (0.005) | (0.004) | (0.004) |
| Education | -0.007*** | -0.020*** | -0.016*** | -0.005* | -0.005 |
| | (0.002) | (0.006) | (0.005) | (0.003) | (0.003) |
| Firm size | 0.006*** | -0.001 | 0.008*** | 0.009*** | 0.009*** |
| | (0.001) | (0.001) | (0.003) | (0.003) | (0.003) |
| Type of contract | 0.005*** | 0.004 | 0.005** | 0.011*** | 0.006** |
| | (0.001) | (0.003) | (0.003) | (0.003) | (0.002) |
| Managerial position | 0.011*** | 0.003 | 0.008*** | 0.015*** | 0.013*** |
| | (0.001) | (0.002) | (0.003) | (0.003) | (0.003) |
| Occupation | 0.004 | 0.006 | -0.013 | 0.015* | 0.016 |
| | (0.005) | (0.015) | (0.009) | (0.009) | (0.011) |
| Industry | 0.038*** | 0.019 | 0.044*** | 0.034*** | 0.039*** |
| | (0.004) | (0.014) | (0.009) | (0.007) | (0.008) |
| Part-time | 0.003 | 0.014 | -0.004 | -0.003 | 0.008 |
| | (0.004) | (0.012) | (0.009) | (0.007) | (0.008) |
| Total | 0.053*** | 0.010 | 0.031* | 0.079*** | 0.087*** |
| | (0.009) | (0.021) | (0.016) | (0.016) | (0.017) |
| *Unexplained part*: | | | | | |
| Male wage premium | -0.000 | 0.000 | -0.000 | -0.000 | 0.000 |
| | (0.001) | (0.004) | (0.002) | (0.003) | (0.003) |
| Female wage penalty | 0.080*** | 0.064* | 0.119*** | 0.074** | 0.192*** |
| | (0.015) | (0.034) | (0.031) | (0.030) | (0.069) |
| *N* | 6329 | 906 | 1510 | 2054 | 1705 |

NOTES - Standard errors in parentheses. * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$.

Notably, twenty-year-old men earn about 6% more than their female colleagues, and the observable characteristics between genders fail to explain the pay difference. Furthermore, women are more educated than men and the wage gap is entirely explained as a wage penalty for women.

This evidence suggests the presence of the *glass door* for young women. For the older age groups, at most half of the gap is explained by the individual, household and job related characteristics. In France the *glass ceiling* effect arises since the age of 30. Indeed, the explained part related to being in a managerial position is statistically significant from 30 years old and increases with age.

increases with age. We find that the pay gap significantly increases up to 39 years old in France, to 49 years old in Italy and the Netherlands, while in the United Kingdom keeps increasing until 59 years old.

In Italy (Table 3) the gender difference in pay increases up to 49 years old. The explained part of the gender wage gap is negative for women older than 30: women show better characteristics than men and in absence of discrimination they should earn more. This is especially true for those women aged between 30 and 49, who experience a wage penalty.

**Table 3.** *Decomposition analysis for Italy*

| Age group | 20-59 | 20-29 | 30-39 | 40-49 | 50-59 |
|---|---|---|---|---|---|
| Male log hourly wage | 2.505*** | 2.145*** | 2.421*** | 2.579*** | 2.669*** |
| | (0.006) | (0.015) | (0.010) | (0.010) | (0.011) |
| Female log hourly wage | 2.410*** | 2.102*** | 2.334*** | 2.452*** | 2.577*** |
| | (0.007) | (0.019) | (0.012) | (0.011) | (0.014) |
| Difference | 0.094*** | 0.043* | 0.087*** | 0.126*** | 0.091*** |
| | (0.009) | (0.024) | (0.016) | (0.014) | (0.018) |
| Adjusted difference | 0.104*** | 0.114 | 0.100*** | 0.121*** | 0.029 |
| | (0.024) | (0.085) | (0.031) | (0.032) | (0.093) |
| *Explained part*: | | | | | |
| Individual characteristics | -0.006** | -0.011** | -0.015*** | -0.012*** | 0.012*** |
| | (0.003) | (0.005) | (0.004) | (0.003) | (0.004) |
| Education | -0.021*** | -0.020*** | -0.023*** | -0.021*** | -0.018*** |
| | (0.002) | (0.007) | (0.004) | (0.003) | (0.004) |
| Firm size | 0.006*** | 0.010** | 0.002 | 0.008*** | 0.007*** |
| | (0.001) | (0.005) | (0.002) | (0.002) | (0.002) |
| Type of contract | 0.008*** | 0.017*** | 0.009*** | 0.007*** | 0.004** |
| | (0.001) | (0.005) | (0.003) | (0.002) | (0.002) |
| Managerial position | 0.013*** | 0.007** | 0.009*** | 0.015*** | 0.017*** |
| | (0.001) | (0.003) | (0.002) | (0.002) | (0.003) |
| Occupation | -0.040*** | -0.007 | -0.034*** | -0.044*** | -0.051*** |
| | (0.004) | (0.013) | (0.006) | (0.006) | (0.009) |
| Industry | -0.010*** | 0.007 | -0.001 | -0.005 | -0.026*** |
| | (0.003) | (0.011) | (0.006) | (0.006) | (0.007) |
| Part-time | 0.016*** | -0.001 | 0.003 | 0.022*** | 0.024*** |
| | (0.003) | (0.008) | (0.006) | (0.005) | (0.006) |
| Total | -0.034*** | 0.002 | -0.049*** | -0.030** | -0.031** |
| | (0.008) | (0.019) | (0.013) | (0.012) | (0.015) |
| *Unexplained part*: | | | | | |
| Male wage premium | -0.000 | -0.000 | -0.000 | 0.000 | 0.000 |
| | (0.001) | (0.003) | (0.001) | (0.001) | (0.002) |
| Female wage penalty | 0.138*** | 0.112 | 0.149*** | 0.151*** | 0.059 |
| | (0.023) | (0.086) | (0.031) | (0.031) | (0.092) |
| *N* | 10231 | 1242 | 2776 | 3635 | 2578 |

NOTES - Standard errors in parentheses. * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

Interestingly, Italian women are less likely to hold a managerial position since their early career stage, suggesting the existence of the *glass door* effect. Notice that the magnitude of the explained part related to the managerial position increases as they grow older, suggesting also the presence of the *glass ceiling* effect. Nonetheless, in Italy there is a consistent share of women employed in better rewarded occupations (Matteazzi et al., 2013), which reduces the width of the gender wage gap and the *glass ceiling* effect.

Differently from all the other countries, the Italian 20-29 female workers are more likely to be employed with a temporary contract than their male peers, and the magnitude of the effect is

particularly large for the youngest age group. Our finding is consistent with Petrongolo (2004). Such a *glass door* at the beginning of the career is likely to delay women's career achievements and wage advancements, while it does not hamper men's possibilities. As a consequence, we expect that older women will compete with younger men for career advancements, while the youngest female workers are left *frozen* during the first part of their working life, when they are also expected to be more dynamic and career oriented.

In the Netherlands (Table 4) the pay gap between males and females is not statistically significant for the 20-29 age group, and there is no evidence of wage penalties or premiums. The decomposition analysis shows that part-time employment explains the negative raw difference, suggesting that part-time jobs give a pay premium for female workers aged 20-29. Empirical

**Table 4.** *Decomposition analysis for the Netherlands*

| Age group | 20-59 | 20-29 | 30-39 | 40-49 | 50-59 |
|---|---|---|---|---|---|
| Male log hourly wage | 3.104*** | 2.745*** | 3.036*** | 3.165*** | 3.192*** |
| | (0.010) | (0.027) | (0.015) | (0.016) | (0.019) |
| Female log hourly wage | 2.964*** | 2.770*** | 2.953*** | 2.993*** | 2.999*** |
| | (0.008) | (0.025) | (0.015) | (0.015) | (0.015) |
| Difference | 0.140*** | -0.026 | 0.083*** | 0.172*** | 0.193*** |
| | (0.013) | (0.037) | (0.021) | (0.022) | (0.024) |
| Adjusted difference | 0.153*** | -0.064 | 0.114*** | 0.185*** | 0.131* |
| | (0.021) | (0.047) | (0.027) | (0.040) | (0.067) |
| *Explained part*: | | | | | |
| Individual characteristics | 0.004 | -0.005 | -0.004 | 0.004 | 0.006* |
| | (0.004) | (0.010) | (0.003) | (0.003) | (0.003) |
| Education | -0.009*** | -0.023 | -0.006 | -0.012* | -0.003 |
| | (0.003) | (0.016) | (0.006) | (0.006) | (0.006) |
| Firm size | 0.005*** | -0.001 | 0.004 | 0.007*** | 0.003 |
| | (0.002) | (0.008) | (0.003) | (0.003) | (0.002) |
| Type of contract | 0.001 | -0.005 | 0.000 | 0.002 | 0.000 |
| | (0.001) | (0.007) | (0.001) | (0.002) | (0.001) |
| Managerial position | 0.015*** | 0.006 | 0.009*** | 0.017*** | 0.020*** |
| | (0.002) | (0.005) | (0.004) | (0.004) | (0.005) |
| Occupation | -0.013** | 0.005 | -0.007 | -0.003 | -0.027** |
| | (0.006) | (0.015) | (0.011) | (0.010) | (0.013) |
| Industry | 0.036*** | -0.004 | 0.031*** | 0.049*** | 0.044*** |
| | (0.006) | (0.020) | (0.010) | (0.011) | (0.014) |
| Part-time | 0.003 | -0.075*** | -0.002 | 0.014 | 0.011 |
| | (0.012) | (0.022) | (0.021) | (0.026) | (0.023) |
| Total | 0.041*** | -0.103*** | 0.025 | 0.079** | 0.055* |
| | (0.016) | (0.036) | (0.026) | (0.031) | (0.029) |
| *Unexplained part*: | | | | | |
| Male wage premium | 0.000 | -0.000 | -0.000 | 0.000 | -0.000 |
| | (0.002) | (0.008) | (0.003) | (0.004) | (0.004) |
| Female wage penalty | 0.112*** | 0.039 | 0.089*** | 0.107** | 0.076 |
| | (0.022) | (0.042) | (0.030) | (0.044) | (0.071) |
| *N* | 3041 | 239 | 894 | 1059 | 849 |

NOTES - Standard errors in parentheses. * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$.

findings suggest that young Dutch female workers do not have to cope with the *glass door* effect.

As for older age groups, the wage gap increases with age and it is mainly explained by the sector of the economic activity and the managerial position. Indeed, men are more represented in higher rewarded sectors, whereas women are segregated in lower paid branches, like food and accommodation services. As in all other countries, the explained part related to the managerial position increases with age. This result is indicative of the presence of the *glass ceiling* effect for women, because men experience more success in climbing the occupational ladder. Finally, women aged between 30 and 49 experience a wage penalty.

In the United Kingdom (Table 5) women older than 30 years old are positively selected in the labor market. The workplace characteristics, i.e. holding a managerial position, the type of occupation,

**Table 5.** *Decomposition analysis for the United Kingdom*

| Age group | 20-59 | 20-29 | 30-39 | 40-49 | 50-59 |
|---|---|---|---|---|---|
| Male log hourly wage | 2.644*** | 2.345*** | 2.656*** | 2.711*** | 2.707*** |
| | (0.011) | (0.024) | (0.020) | (0.019) | (0.020) |
| Female log hourly wage | 2.373*** | 2.248*** | 2.440*** | 2.391*** | 2.360*** |
| | (0.009) | (0.021) | (0.021) | (0.017) | (0.017) |
| Difference | 0.271*** | 0.097*** | 0.216*** | 0.319*** | 0.347*** |
| | (0.014) | (0.032) | (0.029) | (0.026) | (0.026) |
| Adjusted difference | 0.299*** | 0.077** | 0.235*** | 0.367*** | 0.407*** |
| | (0.020) | (0.035) | (0.037) | (0.038) | (0.036) |
| *Explained part*: | | | | | |
| Individual characteristics | 0.006** | -0.008 | 0.010* | 0.012** | 0.004 |
| | (0.003) | (0.006) | (0.006) | (0.005) | (0.005) |
| Education | 0.001 | -0.002 | -0.006 | 0.002 | 0.010 |
| | (0.003) | (0.004) | (0.006) | (0.006) | (0.008) |
| Firm size | 0.000 | 0.004 | -0.001 | -0.001 | 0.002 |
| | (0.001) | (0.004) | (0.002) | (0.003) | (0.004) |
| Type of contract | - | - | - | - | - |
| Managerial position | 0.013*** | 0.002 | 0.008** | 0.016*** | 0.014*** |
| | (0.002) | (0.004) | (0.003) | (0.005) | (0.004) |
| Occupation | 0.035*** | -0.012 | 0.044*** | 0.031** | 0.045*** |
| | (0.007) | (0.015) | (0.016) | (0.015) | (0.013) |
| Industry | 0.025*** | 0.012 | 0.017 | 0.034*** | 0.030** |
| | (0.006) | (0.015) | (0.011) | (0.013) | (0.012) |
| Part-time | 0.022*** | 0.000 | 0.017 | 0.036*** | 0.015 |
| | (0.007) | (0.013) | (0.015) | (0.012) | (0.012) |
| Total | 0.101*** | -0.003 | 0.088*** | 0.131*** | 0.121*** |
| | (0.013) | (0.028) | (0.026) | (0.025) | (0.024) |
| *Unexplained part*: | | | | | |
| Male wage premium | -0.000 | -0.000 | -0.000 | 0.000 | -0.000 |
| | (0.002) | (0.007) | (0.004) | (0.004) | (0.004) |
| Female wage penalty | 0.197*** | 0.080** | 0.147*** | 0.236*** | 0.286*** |
| | (0.019) | (0.033) | (0.034) | (0.037) | (0.036) |
| *N* | 4285 | 608 | 1074 | 1370 | 1233 |

NOTES - Standard errors in parentheses. * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$. The variable referring to the type of contract is missing.

and the sector of the economic activity, explain most of the gender wage gap, pointing out the high degree of segregation that characterizes the British labor market. In the United Kingdom the labor market labyrinth for women appears much more tangled than in the other countries. Women suffer a

wage penalty since the very early career stages, which suggests the presence of the *glass door*. More dramatically, the gender wage gap of the youngest workers is not explained by different observable characteristics, but it is entirely due to a female wage penalty, whose magnitude increases with age. As they grow older, women are increasingly underrepresented in managerial positions and better paid occupations, indicating the presence of the *glass ceiling* effect that emerges by the age of 30.

To conclude, whatever the welfare regime type and the industrial and labor relations system, women experience unfavorable and disadvantaged conditions in the labor market compared to their male colleagues. In all selected countries, female workers bump into the *glass ceiling* since the age of 30. In France, Italy and the United Kingdom women have also to cope with the *glass door* that introduce them in a really tangled labyrinth that holds them back from the C-suite.

## 6. Robustness analysis

We check the robustness of our results to different specifications of hourly wage equations and alternative samples of analysis. First, we exploit the available information about real labor market experience. Since EU-SILC does not provide the required information for the United Kingdom, we limit the robustness analysis to France, Italy and the Netherlands. The results are presented in Tables 6-8. Each table reports eight columns, broadly indexed as *Specification 2* and *Specification 3*. For sake of consistency, we will refer to the decomposition in section 5.3 as *Specification 1*. *Specification 2* controls for the real labor market experience in the wage equation, to check the effect of late starters and career interruptions. For all countries the explained and the unexplained parts are comparable in sign, magnitude, and significance with the ones of *Specification 1*. We can conclude that the omission of the real labor market experience from the covariates in log-hourly wage equations does not bias the results for France, Italy and the Netherlands. So, we expect the same holds for the United Kingdom.

*Specification 3* develops the baseline analysis on a subsample of the dataset including only those individual who started working between 14 and 29 years old. This check allows us to exclude from the analysis those individuals, especially women older than 40, with few years of labor market experience. Thus, we exclude the possibility to have women of really different ages holding the same labor market experience. The rationale for this test is that the career prospects of a 29 years old and a 52 years old woman, both declaring two years of labor market experience, are likely to be really different.

In all countries the gender wage gap for age groups 40-49 and 50-59 are lower in *Specification 3* than in *Specification 2*. This result is reasonable given that the subsample in *Specification 3* includes

workers with an almost continuous career path. It is worth noting that while log-hourly wages of men only slightly differ between the two specifications, the log-hourly earnings of women are considerably higher in *Specification 3* than in *Specification 2*. The explained and the unexplained parts of the decomposition are almost equal in sign, magnitude and statistical significance. In

**Table 6.** *Robustness check for France*

| | Specification 2 | | | | Specification 3 | | | |
|---|---|---|---|---|---|---|---|---|
| Age group: | 20-29 | 30-39 | 40-49 | 50-59 | 20-29 | 30-39 | 40-49 | 50-59 |
| Male log hourly Wage | 2.386*** | 2.628*** | 2.676*** | 2.734*** | 2.386*** | 2.629*** | 2.683*** | 2.736*** |
| | (0.015) | (0.011) | (0.012) | (0.013) | (0.015) | (0.011) | (0.012) | (0.013) |
| Female log hourly wage | 2.324*** | 2.454*** | 2.513*** | 2.550*** | 2.324*** | 2.478*** | 2.550*** | 2.591*** |
| | (0.018) | (0.016) | (0.012) | (0.013) | (0.018) | (0.015) | (0.012) | (0.014) |
| Difference | 0.062*** | 0.174*** | 0.163*** | 0.184*** | 0.062*** | 0.151*** | 0.133*** | 0.145*** |
| | (0.024) | (0.019) | (0.017) | (0.019) | (0.024) | (0.019) | (0.017) | (0.019) |
| Adjusted difference | 0.074** | 0.161*** | 0.158*** | 0.284*** | 0.074** | 0.123*** | 0.143*** | 0.256*** |
| | (0.030) | (0.032) | (0.029) | (0.069) | (0.030) | (0.032) | (0.025) | (0.084) |
| Explained part: | 0.011 | 0.037** | 0.087*** | 0.090*** | 0.010 | 0.026 | 0.048*** | 0.057*** |
| | (0.022) | (0.017) | (0.016) | (0.017) | (0.021) | (0.016) | (0.016) | (0.018) |
| Unexplained part: | | | | | | | | |
| Male wage premium | 0.000 | 0.000 | -0.000 | 0.000 | 0.000 | 0.000 | -0.000 | -0.000 |
| | (0.004) | (0.002) | (0.003) | (0.003) | (0.004) | (0.001) | (0.002) | (0.002) |
| Female wage penalty | 0.062* | 0.124*** | 0.071** | 0.194*** | 0.064* | 0.098*** | 0.095*** | 0.199** |
| | (0.034) | (0.031) | (0.030) | (0.068) | (0.034) | (0.031) | (0.025) | (0.083) |
| *N* | 906 | 1510 | 2054 | 1705 | 906 | 1455 | 1868 | 1495 |

NOTES -Standard errors in parentheses. * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

**Table 7.** *Robustness check for Italy*

| | Specification 2 | | | | Specification 3 | | | |
|---|---|---|---|---|---|---|---|---|
| Age group: | 20-29 | 30-39 | 40-49 | 50-59 | 20-29 | 30-39 | 40-49 | 50-59 |
| Male log hourly wage | 2.145*** | 2.421*** | 2.579*** | 2.669*** | 2.153*** | 2.418*** | 2.580*** | 2.656*** |
| | (0.015) | (0.010) | (0.010) | (0.011) | (0.015) | (0.010) | (0.010) | (0.012) |
| Female log hourly wage | 2.102*** | 2.334*** | 2.452*** | 2.577*** | 2.108*** | 2.328*** | 2.480*** | 2.608*** |
| | (0.019) | (0.012) | (0.011) | (0.014) | (0.020) | (0.013) | (0.012) | (0.016) |
| Difference | 0.043* | 0.087*** | 0.126*** | 0.091*** | 0.046* | 0.089*** | 0.100*** | 0.048** |
| | (0.024) | (0.016) | (0.014) | (0.018) | (0.024) | (0.017) | (0.015) | (0.020) |
| Adjusted difference | 0.112 | 0.107*** | 0.119*** | 0.035 | 0.108 | 0.122*** | 0.074* | 0.004 |
| | (0.085) | (0.032) | (0.032) | (0.091) | (0.084) | (0.034) | (0.038) | (0.119) |
| Explained part: | 0.004 | -0.046*** | -0.018 | -0.026* | 0.008 | -0.051*** | -0.060*** | -0.061*** |
| | (0.019) | (0.013) | (0.012) | (0.015) | (0.019) | (0.013) | (0.013) | (0.017) |
| Unexplained part: | | | | | | | | |
| Male wage premium | -0.000 | -0.000 | -0.000 | 0.000 | -0.000 | 0.000 | -0.000 | 0.000 |
| | (0.003) | (0.001) | (0.001) | (0.002) | (0.003) | (0.002) | (0.001) | (0.002) |
| Female wage penalty | 0.108 | 0.153*** | 0.137*** | 0.061 | 0.100 | 0.173*** | 0.133*** | 0.064 |
| | (0.086) | (0.031) | (0.031) | (0.091) | (0.085) | (0.033) | (0.038) | (0.118) |
| *N* | 1242 | 2776 | 3635 | 2578 | 1209 | 2512 | 2790 | 1923 |

NOTES - Standard errors in parentheses. * p< 0.1, ** p< 0.05, *** p< 0.01.

France and in Italy the magnitude of the female wage penalty slightly increases for women over 40. Indeed, the inclusion of women older than 40 years old with a short labor market experience may blur the results, hiding a larger wage penalty that affects those women who started working when they were young and with an almost continuous career path.

We have also conducted a robustness check by applying different measures of the hourly wage. This test is carried out only for those countries with available information on both annual and monthly earnings, i.e. Italy and the United Kingdom. Mean log-wages computed using the annual definition of income are slightly higher than mean log-wages computed from monthly earnings. This can be plausible given that the annual labor earnings include some payments excluded from the definition of the monthly labor income. The decomposition results based on log-hourly wages computed from monthly earnings are consistent with our main findings. This result make us confident about the definition of hourly earnings adopted in this study[25].

**Table 8.** *Robustness check for the Netherlands*

| | Specification 2 | | | | Specification 3 | | | |
|---|---|---|---|---|---|---|---|---|
| Age group: | 20-29 | 30-39 | 40-49 | 50-59 | 20-29 | 30-39 | 40-49 | 50-59 |
| Male log hourly wage | 2.745*** | 3.036*** | 3.165*** | 3.192*** | 2.745*** | 3.043*** | 3.172*** | 3.203*** |
| | (0.027) | (0.015) | (0.016) | (0.019) | (0.027) | (0.015) | (0.017) | (0.020) |
| Female log hourly wage | 2.770*** | 2.953*** | 2.993*** | 2.999*** | 2.770*** | 2.951*** | 3.010*** | 3.082*** |
| | (0.025) | (0.015) | (0.015) | (0.015) | (0.025) | (0.015) | (0.016) | (0.018) |
| Difference | -0.026 | 0.083*** | 0.172*** | 0.193*** | -0.025 | 0.091*** | 0.161*** | 0.121*** |
| | (0.037) | (0.021) | (0.022) | (0.024) | (0.037) | (0.021) | (0.023) | (0.027) |
| Adjusted difference | -0.070 | 0.116*** | 0.185*** | 0.154** | -0.064 | 0.117*** | 0.173*** | 0.066 |
| | (0.045) | (0.027) | (0.040) | (0.067) | (0.047) | (0.027) | (0.050) | (0.089) |
| Explained part: | -0.099*** | 0.024 | 0.079** | 0.065** | -0.103*** | 0.027 | 0.067** | 0.022 |
| | (0.036) | (0.026) | (0.031) | (0.029) | (0.036) | (0.027) | (0.034) | (0.033) |
| Unexplained part: | | | | | | | | |
| Male wage premium | -0.000 | -0.000 | 0.000 | -0.000 | -0.000 | 0.000 | -0.000 | -0.000 |
| | (0.009) | (0.004) | (0.004) | (0.004) | (0.008) | (0.003) | (0.004) | (0.004) |
| Female wage penalty | 0.029 | 0.092*** | 0.106** | 0.089 | 0.039 | 0.090*** | 0.105* | 0.044 |
| | (0.040) | (0.030) | (0.044) | (0.070) | (0.042) | (0.030) | (0.054) | (0.094) |
| *N* | 239 | 894 | 1059 | 849 | 238 | 857 | 868 | 638 |

NOTES - Standard errors in parentheses. * p< 0.1, ** p< 0.05, *** p< 0.01.

For all the countries, we have also performed the baseline analysis including, at the first stage of the analysis, also those women who self-declare to be unemployed but not searching for a job[26].

[25]The decomposition results are available from the authors upon request.

[26] The subsample of non working women slightly increases in the Netherlands and in the United Kingdom, by 3% and 6%, respectively. In Italy the share of women without a paid job increases by 10% and especially among women belonging to the youngest age group. In France the percentage of non working women raises by 22%, especially among women aged 20-29 and women aged 50-59. Compared to the Netherlands and the United Kingdom, in France and in Italy female unemployment rates are higher, especially among young women. This evidence may explain why much more people in Italy and France have stopped looking for work because the current economic conditions may induce them believing that no work is available for them.

Clearly, this different design of the sample does not affect the size of the raw gender difference in pay because the sample of working men and women remains the same. However, it could affect the decomposition results though the selection effect of women into employment. We find, however, that the magnitude of the selection effect, the explained and unexplained parts are comparable to our main results[27].

Lastly, it would be interesting to perform the same type of analysis on a five year basis. Actually, in all countries the analysis is not feasible for the age group 20-24 and 25-29 because of a very limited number of observations[28]. For the Netherlands and the United Kingdom the same consideration applies also for all every five year age groups (i.e., 30-34, 35-39, 40-44, 45-49, 50-54 and 55-59). As for France and Italy, the results obtained using five-year age groups, defined since the age of 30, are really comparable with those pointed out for the ten-year age groups[29].

## 7. Concluding remarks and policy suggestions

This work provides an empirical assessment of the shape of the labor market 'labyrinth' as defined by Eagly and Carli (2007). We describe the barriers that women face along their career path from the bottom to the top, that is from the *glass door* to the *glass ceiling*.

We present an analysis of the gender wage gap by age groups for France, Italy, the Netherlands and the United Kingdom. We challenge the standard quantile regression analysis by proposing an age group approach. Nonetheless, we keep the empirical methodology commonly used in the literature, and apply the Neuman-Oaxaca (2004) wage gap decomposition analysis both to the entire sample of prime age workers and, separately, to each age group.

The results, robust to a set of checks, show that the raw gender wage gap tends to increase with age. In France, Italy, and the United Kingdom, young women have also to cope with the *glass door*. All other things being equal, women earn significantly less than their male peers and they face less favorable contractual terms and employment conditions. In all countries, women start bumping into the *glass ceiling* since the age of 30. Empirical findings suggest that the thickness of the *glass ceiling* increases as women get older.

From a policy perspective, the evidence of a substantial unexplained gender wage gap, together with the clear presence of the *glass door* and *glass ceiling* effects, represents a concrete threat of female old age poverty, which is especially risky in those countries applying a contributive pension scheme. The policy suggestions to tackle the gender wage gap usually deal with a combination of interventions that favor the effective implementation of anti-discrimination laws and the respect of

[27] The decomposition results are available from the authors upon request.
[28] Less than 300 observations per gender.
[29] The decomposition results are available from the authors upon request.

equal pay and opportunities, especially in low paid and/or highly feminized sectors. These policies, albeit they aim at the core of the problem, might prove ineffective if they are not addressed to tear down the specific barriers faced by female workers along their career path. In the light of its results, our work suggests that policy makers require a set of age-specific tools to tackle the age-specific drivers of the gender inequality in earnings. For instance, the diffusion of flexible working arrangements, like smart working jobs, may help young women in managing the trade-off between family and working responsibilities, other than ensuring job continuity and a more efficient use of time. Notice that, smart working type schedules that allow more job flexibility in time and space might be helpful also for older female workers that choose to take care of elderly parents. However, to avoid the exclusion of women from the office dynamics, the flexibility should be limited to a share of the weekly working hours. In addition, performance evaluation based on objectives rather than timecards would assure equality of opportunities. Also the extension and quality improvement of childcare, out-of-school, and elderly care services represent a policy option. With the objective to help families to reconcile work and childcare commitments and to close the gender wage gap, it might be useful promoting a more balanced sharing of parental leave entitlements and unpaid work. As an example, the introduction of non-transferable leave entitlements for exclusive use by fathers on "use it or lose it" basis, as already experimented in Northern European countries, or the supply of "bonus periods" to fathers taking a parental leave, as it happens in Germany.

To overcome the threat of contract discrimination in the youngest age group (Petrongolo, 2004), as found in Italy, it would be useful the introduction of a single job agreement valid for all the new entrants. This arrangement is usually invoked to fight youth unemployment, but it would also help removing barriers to female career progressions from the beginning. Indeed, the transition from education to paid work is crucial because is the foundation of many disparities faced by women along their career path.

There is evidence that female workers receive less on-the-job training than men (Barron et al., 1993) with negative consequences on promotions and wage advancements (Gronau, 1988). As for women of the oldest age groups, and especially women employed in part-time jobs, an increasing participation in the on-the-job-training may contribute to enhance their skills, and consequently their earnings, filling the gap with their male colleagues.

To tackle the issue of the underrepresentation of women in corporate boards and at more senior job levels, some effective policy initiatives are the introduction of corporate governance codes and mandatory legal quotas. Corporate governance codes, which aim at promoting gender-balanced company boards, have been implemented in France, while gender-board quotas for publicly listed companies have been established in France and Italy (OECD, 2012).

Whatever the age groups, in order to ensure an effective monitoring of the effectiveness of gender equality initiatives and laws, it is useful the establishment of a compulsory requirement for companies to publish equal pay reports and plans to close the gender wage gap, as it happens in France. The goal is to introduce corporate obligations for professional equality between women and men, to create income transparency and take firm-specific measures to reduce gender pay gaps.

To the best of our knowledge, the present work represents the first systematic analysis of the gender wage gap by age groups. Hence, our results call for further research. A natural development is represented by a quantile analysis by age groups, which at the moment encounters problems related to the small sample size of age groups quantiles using existing datasets. Larger datasets, possibly including a longitudinal dimension, would also allow the assessment of age-specific impacts of external shocks (e.g., the Great Recession) or policy interventions (e.g., the increase of retirement age) over the gender wage gap.

**References**

Addabbo, T., and Favaro, D. (2011). Gender wage differentials by education in Italy. *Applied Economics* 43(29): 4589-4605.

Albrecht, J., Björklund, A., and Vroman, S. (2003). Is there a glass ceiling in Sweden?. *Journal of Labor Economics* 21(1): 145-177.

Albrecht, J., van Vuuren, A., and Vroman, S. (2009). Decomposing the gender wage gap in the Netherlands with sample selection adjustments. *Labour Economics* 16(4): 383-396.

Anderson, D. J, Blinder, M. and Krause, K. (2003). The motherhood wage penalty revisited: experience, heterogeneity, work effort, and work-schedule flexibility. *Industrial and Labor Relations Review* 56(2): 273-294.

Anxo, D., Fagan, C., Cedrian, I., and Moreno, G. (2007). Patterns of labour market integration in Europe - a life course perspective on time policies. *Socio-Economic Review* 5(2): 233-60.

Apps, P., Kabátek, J., Rees R., and van Soest, A. (2012). Labor supply heterogeneity and demand for child care of mothers with young children. *IZA Discussion Paper* No. 7007.

Arulampalam, W., Booth, A. L., and Bryan, M. L. (2007). Is there a glass ceiling over Europe? Exploring the gender pay gap across the wage distribution. *Industrial and Labor Relations Review* 60(2): 163-186.

Ashenfelter, O., and Heckman, J. (1974). The estimation of income and substitution effects in a model of family labor supply. *Econometrica* 42(1): 73-85.

Baizan, P., Billari, F., and Michielin, F. (2002). Political economy and lifecourse patterns: the heterogeneity of occupational, family and household trajectories of young Spaniards. *Demographic Research* 6(8): 189-240.

Barron, J. M., Black, D.A., and Loewenstein, M.A. (1993). Gender differences in training, capital and wages. *Journal of Human Resources* 28(2): 343-364.

Blackburn, M., and Krenman, S. (1994). The declining marital-status earnings differential. *Journal of Population Economics* 7(3): 247-270.

Blau, F.D., and Kahn, L.M. (2000). Gender differences in pay. *Journal of Economic Perspectives* 14(4): 75-99.

Blau, F.D., and Kahn, L.M. (2003). Understanding international differences in the gender pay gap. *Journal of Labor Economics* 21(1): 106-144.

Blundell, R.,and MaCurdy, T.(1999). Labor supply: A review of alternative approaches, in: Orley Ashenfelter and David Card (Eds.), *Handbook of Labor Economics: Volume 3,* pp. 1559-1695. Amsterdam: Elsevier.

Blundell, R., MaCurdy, T., and Meghir, C.(2007). Labor supply models: Unobserved heterogeneity, nonparticipation and dynamics, in: James Heckman and Edward Leamer (Eds.), *Handbook of Econometrics: Volume 6*, pp. 4667-4771. Amsterdam: Elsevier.

Booth, A. L., Francesconi, M., and Frank, J. (2003). A sticky floors model of promotion, pay, and gender. *European Economic Review* 47(2): 295-322.

Charmicael, F., and Charles, S. (1998). The labor market costs of community care. *Journal of Health Economics* 17(6): 747-765.

Charmicael, F., and Charles, S. (2003). Benefit payments, informal care and female labor supply. *Applied Economics Letters* 10(7): 411-415.

Chi, W., and Li, B. (2008). Glass ceiling or sticky floor? Examining the gender earnings differential across the earnings distribution in urban China, 1987–2004. *Journal of Comparative Economics* 36(2): 243-263.

Chiuri, M. C. (2000). Quality of child care and household labor supply in Italy. *Labour* 14(1): 97-118.

Christofides, L. N., Polycarpou, A., and Vrachimis, K. (2013). Gender wage gaps, 'sticky floors' and 'glass ceilings' in Europe. *Labor Economics* 21: 86-102.

Daly, A., Meng, X., Kawaguchi, A., and Mumford, K. (2006). The gender wage gap in four Countries. *Economic Record* 82(257): 165-176.

De la Rica, S., Dolado, J. J., and Llorens, V. (2008). Ceilings or floors? Gender wage gaps by education in Spain. *Journal of Population Economics* 21(3): 751-776.

Del Boca, D. (2002). The effect of childcare and part-time on participation and fertility of Italian women. *Journal of Population Economics* 15(3): 549-573

Del Boca, D., Pasqua, S., and Pronzato, C. (2005). Fertility and employment in Italy, France, and the UK. *Labour* 19(s1): 51-77.

Eagly, A. H., and Carli, L. L. (2007). Women and the labyrinth of leadership. *Harvard Business Review* 85(9): 62-71.

Ebbinghaus, B. (1998). European labor relations and welfare-state regimes: A comparative analysis of their elective affinities. *Background paper for the Conference on Varieties of Welfare Capitalism in Europe, North America and Japan*, Max Planck Institute for the Study of Societies, Cologne.

Elder, G.(2003). The life course in time and place. In: Heinz W.R., Marshall V.W., *Sequences, Institutions, and Interrelationships Over the Life Course*. Aldine de Gruyter, New York.

Esping-Andersen, G. 1990. *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.

Esping-Andersen, G. (1999). *Social Foundations of Postindustrial Economies*. Oxford University Press.

Ettner, S.L. (1996). The opportunity costs of elder care. *The Journal of Human Resources* 31(1): 189-205.

European Commission (1998). *Employment in Europe 1998.* Directorate-General for Employment, Social Affairs and Equal Opportunities. Luxembourg: Office for Official Publications of the European Communities.

European Commission (2008). *Industrial Relations in Europe*. Directorate-General for Employment, Social Affairs and Inclusion, Unit B.1. Publications Office of the European Union, Luxemburg.

European Commission (2010). *Industrial Relations in Europe*. Directorate-General for Employment, Social Affairs and Inclusion, Unit B.1. Publications Office of the European Union, Luxemburg.

Eurostat (1998). *The European Union Labour Force Survey, Methods and Definitions*. Eurostat edition.

Ferrera, M. (1996). The Southern model of welfare in social Europe. *Journal of European Social Policy* 6(1): 17-37.

Gronau, R. (1988). Sex-related wage differentials women's interrupted labor careers-the chicken or the egg. *Journal of Labor Economics* 6(3): 277-301.

Hall, P. A., and Soskice, D. (2001). *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford University Press.

Hassink, W. H., and Russo, G. (2010). The glass door: The gender composition of newly-hired workers across hierarchical job levels. *Utrecht School of Economics*, *Discussion paper series* 10-06.

Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica* 47(1): 153-161.

Heckman, J. J., and Willis, R. J. (1977). A beta-logistic model for the analysis of sequential labor force participation by married women. *Journal of Political Economy* 85(1): 27-58.

Heitmueller, A. (2004). The chicken or the egg? Endogeneity in labor market participation of informal careers in England. *IZA Discussion Paper* No. 1336. IZA, Bonn.

Hersch, J., and Stratton, S. L. (2000). Household specialization and the male marriage wage premium. *Industrial and Labor Relations Review* 54(1): 78-94.

Johnson, R.W., and Lo Sasso, A.T. (2000). The trade-off between hours of paid employment and time assistance to elderly parents at midlife. *Report from the Urban Institute*, Washington DC.

Korenman S.,and Neumark, D. (1991). Does marriage really make men more productive?. *Journal of Human Resources* 26(2): 282-307.

Korpi, W. and Palme, J. (1998). The paradox of redistribution and strategies of equality: Welfare state institutions, inequality and poverty in the Western countries. *American Sociological Review* 63(5): 661-687.

Leibfried, S. (1992). Towards a European welfare state? On integrating poverty regimes into the European Community. In: Ferge, Z. and Kolberg L. E., *Social Policy in a Changing Europe*, pp. 245-279. Campus, Frankfurt.

Lundberg, S., and Rose, E. (2000). Parenthood and the earnings of married men and women. *Labor Economics* 7(6): 689-710.

Lundberg, S., and Rose, E. (2002). The effects of sons and daughters on men's labor supply and wages. *The Review of Economics and Statistics* 84(2): 251-268.

Manning, A., and Robinson, H. (2004). Something in the way she moves: a fresh look at an old gap. *Oxford Economic Papers* 56(2):169-188.

Matteazzi, E., Pailhé, A., and Solaz, A. (2013). Does part-time employment widen the gender wage gap? Evidence from twelve European countries. *ECINEQ Working Papers Series* No. 293.

Matteazzi, E., Pailhé, A., and Solaz, A. (2014). Part-time wage penalty for women in prime age: A matter of selection or segregation? Evidence from four European countries. *Industrial and Labor Relations Review* 67(3): 955-985.

Meurs, D., and Ponthieux, S. (2006). Can the gender wage go further down?. *Economie et Statistique* 398: 99-129.

Meurs, D., Pailhé, A., and Ponthieux, S. (2010). Child-related career interruptions and the gender wage gap in France. *Annales d'Economie et de Statistique* 99-100: 15-46.

Mumford, K., and Smith, P. N. (2009). What determines the part-time and gender earnings gaps in Britain: evidence from the workplace. *Oxford Economic Papers* 61:56-75.

Napari, S. (2009). Gender differences in early-career wage growth. *Labor Economics* 16(2):140-148.

Neuman, S., and Oaxaca, R. (2004). Wage decompositions with selectivity-corrected wage equations: a methodological note. *The Journal of Economic Inequality* 2(1): 3-10.

Neumark, D. (1988). Employers' discriminatory behavior and the estimation of wage discrimination. *The Journal of Human Resources* 23(3): 279-295.

Ñopo, H., Daza, N., and Ramos, J. (2012). Gender earning gaps around the world: a study of 64 countries. *International Journal of Manpower* 33(5): 464-513.

OECD (2012), *Closing the Gender Gap: Act Now*. OECD Publishing.

Olivetti, C., and Petrongolo, B. (2008). Unequal pay or unequal employment? A cross-country analysis of gender gaps. *Journal of Labor Economics* 26(4): 621-654.

Petrongolo, B. (2004). Gender segregation in employment contracts. *Journal of the European Economic Association* 2(2-3): 331-345.

Pissarides, C., Garibaldi, P., Olivetti, C., Petrongolo, B., and Wasmer, E. (2005). Women in the labor force: How well is Europe doing?, in T. Boeri, D. Del Boca e C. Pissarides, W*omen at Work. An Economic Perspective*, Oxford, Oxford University Press, pp. 7-120.

Rindfuss, R., Morgan, S., and Swicegood, C. (1988). *First Births in America: Changes in the Timing of Parenthood*. Berkeley: University of California Press.

Rubery, J. (1988). *Women and Recession*. London: Routledge.

Rubery, J., Grimshaw, D., and Figueiredo, H. (2002). *The gender pay gap and gender mainstreaming pay policy in EU Member States*. European Work and Employment Research Centre, Manchester UK.

Rubery, J., Grimshaw, D., and Figueiredo, H. (2005). How to close the gender pay gap in Europe: towards the gender mainstreaming of pay policies. *Industrial Relations Journal* 36(3): 184-213.

Rubery, J., and Rafferty, A. (2013). Women and the recession revisited. *Work, Employment and Society* 27(3): 414-432.

Shalev, M. (1996). *The Privatization of Social Policy? Occupational Welfare and the Welfare State in America, Scandinavian and Japan*. London: Macmillan.

Van de Meer, P.H. (2008). Is the gender wage gap declining in the Netherlands? *Applied Economics* 40(2): 149-160.

Visser, J. and Hemerijick, A.C. (1997). *A Dutch Miracle: Job Growth, Welfare Reform and Corporatism in the Netherlands*. Amsterdam: Amsterdam University Press.

Weichselbaumer, D., and Winter-Ebmer, R. (2005). A meta-analysis of the international gender wage gap. *Journal of Economic Surveys* 19(3): 479-511.

Wildeboer Schut, J.M., Vroman, J.C., and de Beer, P.T. (2001). *On Worlds of Welfare: Institutions and Their Effects in Eleven Welfare States*. The Hague: Social and Cultural Planning Office.

Zizza, R. (2013). The gender wage gap in Italy. *Economic Research and International Relations Area Working Paper No. 172*.The Bank of Italy, Rome.

## Appendix

**Table A1.** *Descriptive statistics for France and Italy (%)*

| | France | | | | | | | | Italy | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Age group | 20-29 | | 20-29 | | 20-29 | | 20-29 | | 20-29 | | 20-29 | | 20-29 | | 20-29 | |
| | Men | Men | Men | Men | Men | Men | Men | Men | Men | Women | Men | Women | Men | Women | Men | Women |
| Education 1 | 0.11 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.33 | 0.09 | 0.11 | 0.09 | 0.19 | 0.19 | 0.27 | 0.3 |
| Education 2 | 0.53 | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | 0.61 | 0.43 | 0.48 | 0.38 | 0.53 | 0.48 | 0.52 | 0.45 |
| Education 3 | 0.35 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.49 | 0.41 | 0.53 | 0.28 | 0.33 | 0.21 | 0.25 |
| Part-time | - | - | - | - | - | - | - | - | - | 0.21 | - | 0.26 | - | 0.33 | - | 0.27 |
| Firm with more than 10 employees | 0.73 | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 | 0.75 | 0.85 | 0.79 | 0.84 | 0.78 | 0.85 | 0.78 |
| Permanent contract | 0.78 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.73 | 0.94 | 0.91 | 0.96 | 0.91 | 0.97 | 0.94 |
| Managerial position | 0.31 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.25 | 0.44 | 0.33 | 0.45 | 0.28 | 0.39 | 0.25 |
| Occupation 1 | 0.15 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.14 | 0.23 | 0.23 | 0.23 | 0.17 | 0.24 | 0.16 |
| Occupation 2 | 0.2 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.28 | 0.25 | 0.26 | 0.20 | 0.21 | 0.20 | 0.22 |
| Occupation 3 | 0.06 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.19 | 0.06 | 0.21 | 0.07 | 0.22 | 0.06 | 0.24 |
| Occupation 4 | 0.07 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.26 | 0.06 | 0.17 | 0.05 | 0.19 | 0.04 | 0.13 |
| Occupation 5 | 0.43 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.05 | 0.35 | 0.05 | 0.39 | 0.06 | 0.38 | 0.06 |
| Occupation 6 | 0.08 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.08 | 0.05 | 0.07 | 0.06 | 0.15 | 0.08 | 0.18 |
| Activity sector 1 | 0.26 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.09 | 0.27 | 0.11 | 0.34 | 0.12 | 0.31 | 0.12 |
| Activity sector 2 | 0.24 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.05 | 0.23 | 0.07 | 0.19 | 0.05 | 0.20 | 0.04 |
| Activity sector 3 | 0.21 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.19 | 0.14 | 0.13 | 0.15 | 0.13 | 0.10 | 0.09 |
| Activity sector 4 | 0.03 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.02 | 0.02 | 0.01 | 0.03 | 0.01 | 0.01 |
| Activity sector 5 | 0.09 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.07 | 0.08 | 0.06 | 0.04 | 0.06 | 0.05 | 0.05 |
| Activity sector 6 | 0.04 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.04 | 0.05 | 0.04 | 0.04 | 0.04 | 0.05 |
| Activity sector 7 | 0.07 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.11 | 0.10 | 0.17 | 0.12 | 0.17 | 0.16 | 0.21 |
| Activity sector 8 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.26 | 0.08 | 0.31 | 0.08 | 0.31 | 0.09 | 0.32 |
| Activity sector 9 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.12 | 0.03 | 0.08 | 0.04 | 0.09 | 0.04 | 0.11 |

NOTES - Categories for education: 1 = at most lower secondary education; 2 = at most upper secondary education; 3 = tertiary education. Categories: 1 = legislators, senior officials and managers, professionals (reference category); 2 = technicians and associate professionals; 3 = clerks; 4 = service workers, shop and market sellers; 5 = skilled agricultural and fishery workers, craft and related trades workers, plant and machine operators and assemblers; 6 = elementary occupations. Categories: 1 = agriculture forestry and fishing; mining and quarrying; manufacturing (reference category); electricity, etc.; water supply, etc. 2 = construction; transport and storage. 3 = wholesale and retail trade, etc. 4 = accommodation and food services activities. 5 = information and communication; financial and insurance activities. 6 = real estate activities; professionals, etc.; administrative and support service activities. 7 = public administration and defense; compulsory social security. 8 = education; human health and social work activities. 9 = arts, entertainment and recreation; other service activities; activities of households as employers, etc.; activities of extraterritorial organizations and bodies.

**Table A2.** *Descriptive statistics for the Netherlands and the United Kingdom (%)*

| Age group | The Netherlands | | | | | | | | United Kingdom | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20-29 | | 30-39 | | 40-49 | | 50-59 | | 20-29 | | 30-39 | | 40-49 | | 50-59 | |
| | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| Education 1 | 0.11 | 0.07 | 0.15 | 0.06 | 0.17 | 0.14 | 0.22 | 0.21 | 0.07 | 0.06 | 0.06 | 0.05 | 0.10 | 0.09 | 0.15 | 0.17 |
| Education 2 | 0.55 | 0.5 | 0.41 | 0.47 | 0.48 | 0.47 | 0.43 | 0.42 | 0.58 | 0.57 | 0.53 | 0.51 | 0.56 | 0.58 | 0.52 | 0.53 |
| Education 3 | 0.34 | 0.44 | 0.45 | 0.47 | 0.34 | 0.39 | 0.35 | 0.37 | 0.34 | 0.37 | 0.42 | 0.45 | 0.34 | 0.33 | 0.33 | 0.30 |
| Part-time | - | 0.48 | - | 0.75 | - | 0.82 | - | 0.76 | - | 0.22 | - | 0.40 | - | 0.41 | - | 0.36 |
| Firm with more than 10 employees | 0.81 | 0.82 | 0.89 | 0.86 | 0.93 | 0.87 | 0.93 | 0.9 | 0.85 | 0.82 | 0.81 | 0.83 | 0.82 | 0.83 | 0.83 | 0.82 |
| Permanent contract | 0.84 | 0.88 | 0.92 | 0.92 | 0.97 | 0.93 | 0.98 | 0.98 | - | - | - | - | - | - | - | - |
| Managerial position | 0.29 | 0.21 | 0.36 | 0.22 | 0.4 | 0.22 | 0.42 | 0.23 | 0.27 | 0.26 | 0.48 | 0.38 | 0.51 | 0.34 | 0.47 | 0.33 |
| Occupation 1 | 0.28 | 0.33 | 0.38 | 0.34 | 0.37 | 0.31 | 0.39 | 0.35 | 0.22 | 0.21 | 0.44 | 0.34 | 0.4 | 0.24 | 0.42 | 0.26 |
| Occupation 2 | 0.24 | 0.27 | 0.22 | 0.28 | 0.23 | 0.28 | 0.2 | 0.22 | 0.16 | 0.16 | 0.12 | 0.15 | 0.14 | 0.18 | 0.11 | 0.13 |
| Occupation 3 | 0.05 | 0.17 | 0.08 | 0.21 | 0.11 | 0.24 | 0.07 | 0.23 | 0.10 | 0.25 | 0.04 | 0.21 | 0.04 | 0.25 | 0.06 | 0.27 |
| Occupation 4 | 0.11 | 0.21 | 0.04 | 0.13 | 0.05 | 0.13 | 0.05 | 0.13 | 0.16 | 0.31 | 0.07 | 0.21 | 0.06 | 0.25 | 0.05 | 0.20 |
| Occupation 5 | 0.3 | 0.02 | 0.26 | 0.03 | 0.2 | 0.01 | 0.26 | 0.03 | 0.24 | 0.01 | 0.23 | 0.03 | 0.25 | 0.03 | 0.27 | 0.04 |
| Occupation 6 | 0.03 | 0.01 | 0.03 | 0.01 | 0.03 | 0.03 | 0.03 | 0.04 | 0.11 | 0.06 | 0.10 | 0.06 | 0.11 | 0.06 | 0.08 | 0.11 |
| Activity sector 1 | 0.09 | 0.07 | 0.22 | 0.07 | 0.26 | 0.08 | 0.26 | 0.07 | 0.19 | 0.11 | 0.23 | 0.06 | 0.26 | 0.06 | 0.30 | 0.07 |
| Activity sector 2 | 0.21 | 0.05 | 0.18 | 0.05 | 0.18 | 0.03 | 0.18 | 0.04 | 0.15 | 0.04 | 0.14 | 0.04 | 0.22 | 0.04 | 0.17 | 0.04 |
| Activity sector 3 | 0.25 | 0.15 | 0.14 | 0.1 | 0.09 | 0.09 | 0.1 | 0.07 | 0.18 | 0.13 | 0.15 | 0.12 | 0.08 | 0.14 | 0.09 | 0.13 |
| Activity sector 4 | 0.02 | 0.01 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.05 | 0.04 | 0.03 | 0.04 | 0.01 | 0.03 | 0.01 | 0.02 |
| Activity sector 5 | 0.12 | 0.06 | 0.15 | 0.08 | 0.12 | 0.07 | 0.08 | 0.04 | 0.13 | 0.10 | 0.10 | 0.10 | 0.09 | 0.06 | 0.08 | 0.06 |
| Activity sector 6 | 0.16 | 0.09 | 0.13 | 0.15 | 0.09 | 0.09 | 0.08 | 0.07 | 0.11 | 0.12 | 0.13 | 0.11 | 0.08 | 0.07 | 0.09 | 0.07 |
| Activity sector 7 | 0.05 | 0.05 | 0.07 | 0.09 | 0.13 | 0.11 | 0.13 | 0.09 | 0.08 | 0.09 | 0.07 | 0.09 | 0.09 | 0.10 | 0.07 | 0.11 |
| Activity sector 8 | 0.07 | 0.5 | 0.09 | 0.42 | 0.1 | 0.49 | 0.14 | 0.58 | 0.06 | 0.31 | 0.12 | 0.40 | 0.12 | 0.45 | 0.15 | 0.45 |
| Activity sector 9 | 0.03 | 0.03 | 0.01 | 0.02 | 0.02 | 0.03 | 0.01 | 0.03 | 0.03 | 0.06 | 0.03 | 0.04 | 0.04 | 0.04 | 0.03 | 0.04 |

NOTES - Categories for education: 1 = at most lower secondary education; 2 = at most upper secondary education; 3 = tertiary education. Categories: 1 = legislators, senior officials and managers, professionals (reference category); 2 = technicians and associate professionals; 3 = clerks; 4 = service workers, shop and market sellers; 5 = skilled agricultural and fishery workers, craft and related trades workers, plant and machine operators and assemblers; 6 = elementary occupations. Categories: 1 = agriculture forestry and fishing; mining and quarrying; manufacturing (reference category); electricity, etc.; water supply, etc. 2 = construction; transport and storage. 3 = wholesale and retail trade, etc. 4 = accommodation and food services activities. 5 = information and communication; financial and insurance activities. 6 = real estate activities; professionals, etc.; administrative and support service activities. 7 = public administration and defense; compulsory social security. 8 = education; human health and social work activities. 9 = arts, entertainment and recreation; other service activities; activities of households as employers, etc.; activities of extraterritorial organizations and bodies.

**Table A3.** *Probit estimates for France - marginal effects*

| Age group | 20-59 | 20-29 | 30-39 | 40-49 | 50-59 |
|---|---|---|---|---|---|
| Nationality | 0.129*** | 0.383*** | 0.145*** | 0.105*** | 0.152*** |
| | (0.024) | (0.134) | (0.056) | (0.039) | (0.045) |
| Age | 0.036*** | n.i. | n.i. | n.i. | n.i. |
| | (0.004) | | | | |
| Age squared | -0.000*** | n.i. | n.i. | n.i. | n.i. |
| | (0.000) | | | | |
| Education 2 | 0.079*** | 0.071*** | 0.076*** | 0.079*** | 0.109*** |
| | (0.011) | (0.026) | (0.023) | (0.019) | (0.023) |
| Education 3 | 0.151*** | 0.148*** | 0.233*** | 0.123*** | 0.160*** |
| | (0.011) | (0.034) | (0.036) | (0.016) | (0.020) |
| # children aged 0-2 | -0.116*** | -0.117*** | -0.122*** | -0.121*** | - |
| | (0.016) | (0.028) | (0.025) | (0.046) | |
| # children aged 3-5 | -0.121*** | -0.084*** | -0.139*** | -0.109*** | - |
| | (0.014) | (0.024) | (0.021) | (0.028) | |
| # children aged 6-11 | -0.079*** | -0.052* | -0.080*** | -0.063*** | 0.027 |
| | (0.009) | (0.027) | (0.014) | (0.013) | (0.065) |
| # children older than 12 | -0.033*** | - | -0.045*** | -0.028*** | -0.009 |
| | (0.006) | | (0.016) | (0.008) | (0.012) |
| Partnership status | 0.014 | 0.030 | 0.002 | 0.026 | -0.038 |
| | (0.014) | (0.042) | (0.035) | (0.028) | (0.027) |
| Presence of older people in bad health | 0.050 | -0.135 | - | 0.013 | 0.066 |
| | (0.046) | (0.227) | | (0.075) | (0.057) |
| Annual non labor income | -0.000*** | -0.000 | -0.000** | -0.000** | -0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Partner's labor income | -0.000*** | 0.000 | -0.000 | -0.000** | -0.000** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Availability of informal childcare | 0.102*** | 0.062*** | - | 0.078*** | - |
| | (0.006) | (0.016) | | (0.014) | |
| Degree of urbanization | 0.002 | -0.036* | -0.012 | 0.004 | 0.035 |
| | (0.013) | (0.019) | (0.026) | (0.024) | (0.033) |
| *N* | 3640 | 511 | 742 | 1180 | 1053 |

NOTES - We also control for eight regional dummies. Standard errors in parentheses. * $p<0.1$, ** $p<0.05$, *** $p<0.01$. n.i. means not included in the analysis. - means dropped because of collinearity.

**Table A4.** *Probit estimates for Italy - marginal effects*

| Age group | 20-59 | 20-29 | 30-39 | 40-49 | 50-59 |
|---|---|---|---|---|---|
| Nationality | 0.116*** | 0.106* | 0.197*** | 0.097** | 0.091* |
| | (0.022) | (0.061) | (0.039) | (0.039) | (0.047) |
| Age | 0.049*** | n.i. | n.i. | n.i. | n.i. |
| | (0.006) | | | | |
| Age squared | -0.001*** | n.i. | n.i. | n.i. | n.i. |
| | (0.000) | | | | |
| Education 2 | 0.290*** | 0.150*** | 0.225*** | 0.246*** | 0.379*** |
| | (0.012) | (0.046) | (0.027) | (0.020) | (0.022) |
| Education 3 | 0.385*** | 0.151*** | 0.292*** | 0.365*** | 0.522*** |
| | (0.011) | (0.053) | (0.025) | (0.016) | (0.019) |
| # children aged 0-2 | -0.225*** | -0.454*** | -0.217*** | -0.173*** | - |
| | (0.024) | (0.067) | (0.029) | (0.064) | |
| # children aged 3-5 | -0.186*** | -0.405*** | -0.235*** | -0.060* | - |
| | (0.020) | (0.073) | (0.027) | (0.036) | |
| # children aged 6-11 | -0.146*** | -0.336*** | -0.184*** | -0.113*** | -0.086 |
| | (0.014) | (0.079) | (0.020) | (0.020) | (0.095) |
| # children older than 12 | -0.050*** | 0.276*** | -0.089*** | -0.052*** | -0.018 |
| | (0.008) | (0.070) | (0.025) | (0.012) | (0.013) |
| Partnership status | -0.178*** | -0.009 | -0.112*** | -0.192*** | -0.212*** |
| | (0.016) | (0.076) | (0.032) | (0.027) | (0.029) |
| Presence of older people in bad health | -0.086*** | 0.042 | -0.120** | -0.148*** | -0.022 |
| | (0.029) | (0.102) | (0.057) | (0.049) | (0.052) |
| Annual non labor income | -0.000 | -0.001 | -0.000 | -0.000 | -0.000 |
| | (0.000) | (0.001) | (0.000) | (0.000) | (0.000) |
| Partner's labor income | -0.000** | 0.000 | -0.000 | -0.000 | -0.000** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Availability of informal childcare | 0.263*** | 0.206*** | 0.245*** | 0.271*** | 0.147 |
| | (0.017) | (0.053) | (0.024) | (0.024) | (0.229) |
| Degree of urbanization | -0.008 | -0.021 | -0.000 | -0.025 | -0.002 |
| | (0.015) | (0.044) | (0.030) | (0.024) | (0.028) |
| *N* | 7818 | 790 | 2006 | 2715 | 2307 |

NOTES - We also control for five regional dummies. Standard errors in parentheses. * $p<0.1$, ** $p<0.05$, *** $p<0.01$. n.i. means not included in the analysis. - means dropped because of collinearity.

**Table A5.***Probit estimates for the Netherlands - marginal effects*

| Age group | 20-59 | 20-29 | 30-39 | 40-49 | 50-59 |
|---|---|---|---|---|---|
| Nationality | 0.157*** | 0.252 | 0.108 | 0.188** | 0.052 |
| | (0.049) | (0.203) | (0.084) | (0.079) | (0.088) |
| Age | 0.076*** | n.i. | n.i. | n.i. | n.i. |
| | (0.011) | | | | |
| Age squared | -0.001*** | n.i. | n.i. | n.i. | n.i. |
| | (0.000) | | | | |
| Education 2 | 0.173*** | 0.155** | 0.125*** | 0.143*** | 0.210*** |
| | (0.022) | (0.070) | (0.040) | (0.037) | (0.041) |
| Education 3 | 0.297*** | 0.131** | 0.248*** | 0.267*** | 0.358*** |
| | (0.019) | (0.060) | (0.039) | (0.031) | (0.038) |
| # children aged 0-2 | -0.105*** | -0.089* | -0.099*** | -0.016 | - |
| | (0.033) | (0.050) | (0.028) | (0.093) | |
| # children aged 3-5 | -0.161*** | -0.168*** | -0.110*** | -0.111** | - |
| | (0.026) | (0.059) | (0.024) | (0.046) | |
| # children aged 6-11 | -0.156*** | -0.131** | -0.133*** | -0.094*** | 0.068 |
| | (0.016) | (0.065) | (0.021) | (0.022) | (0.120) |
| # children older than 12 | -0.083*** | - | -0.066** | -0.068*** | -0.045* |
| | (0.012) | | (0.031) | (0.016) | (0.026) |
| Partnership status | -0.126*** | 0.027 | -0.052 | -0.109*** | -0.267*** |
| | (0.023) | (0.114) | (0.042) | (0.037) | (0.046) |
| Presence of older people in bad health | n.i. | n.i. | n.i. | n.i. | n.i. |
| Annual nonlabor income | -0.000* | -0.004* | 0.000 | -0.000 | -0.001** |
| | (0.000) | (0.003) | (0.001) | (0.000) | (0.000) |
| Partner's labor income | -0.000*** | 0.000 | -0.000** | -0.000 | -0.000* |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Availability of informal childcare | 0.150*** | 0.076* | 0.107*** | 0.124*** | -0.036 |
| | (0.021) | (0.039) | (0.027) | (0.032) | (0.331) |
| Degree of urbanization | n.a. | n.a. | n.a. | n.a. | n.a. |
| *N* | 2189 | 151 | 587 | 722 | 729 |

NOTES - Standard errors in parentheses. * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$. n.i. means not included in the analysis. n.a. means not available information. - means dropped because of collinearity.

**Table A6.** *Probit estimates for the United Kingdom- marginal effects*

| Age group | 20-59 | 20-29 | 30-39 | 40-49 | 50-59 |
|---|---|---|---|---|---|
| Nationality | 0.054** | 0.163** | 0.052 | 0.071 | 0.043 |
| | (0.024) | (0.079) | (0.052) | (0.044) | (0.043) |
| Age | 0.025*** | n.i. | n.i. | n.i. | n.i. |
| | (0.006) | | | | |
| Age squared | -0.000*** | n.i. | n.i. | n.i. | n.i. |
| | (0.000) | | | | |
| Education 2 | 0.166*** | 0.106* | 0.191*** | 0.139*** | 0.143*** |
| | (0.020) | (0.058) | (0.058) | (0.034) | (0.027) |
| Education 3 | 0.200*** | 0.237*** | 0.268*** | 0.180*** | 0.113*** |
| | (0.015) | (0.040) | (0.049) | (0.024) | (0.019) |
| # children aged 0-2 | -0.203*** | -0.209*** | -0.249*** | -0.209*** | - |
| | (0.020) | (0.044) | (0.034) | (0.056) | |
| # children aged 3-5 | -0.211*** | -0.213*** | -0.282*** | -0.155*** | - |
| | (0.017) | (0.047) | (0.032) | (0.033) | |
| # children aged 6-11 | -0.131*** | -0.075** | -0.170*** | -0.107*** | -0.143*** |
| | (0.012) | (0.032) | (0.024) | (0.018) | (0.048) |
| # children older than 12 | -0.060*** | -0.062 | -0.109*** | -0.047*** | -0.015 |
| | (0.008) | (0.188) | (0.026) | (0.011) | (0.012) |
| Partnership status | -0.013 | -0.007 | 0.004 | -0.023 | -0.080*** |
| | (0.017) | (0.047) | (0.046) | (0.028) | (0.021) |
| Presence of older people in bad health | -0.240* | - | - | - | -0.485** |
| | (0.145) | | | | (0.197) |
| Annual nonlabor income | -0.001*** | -0.004*** | -0.004*** | -0.001*** | -0.001*** |
| | (0.000) | (0.001) | (0.001) | (0.000) | (0.000) |
| Partner's labor income | -0.000** | 0.000 | -0.000 | -0.000 | -0.000 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Availability of informal childcare | 0.080*** | 0.029 | 0.150*** | 0.071*** | |
| | (0.014) | (0.037) | (0.030) | (0.023) | |
| Degree of urbanization | 0.035 | -0.058 | 0.143 | 0.075 | -0.031 |
| | (0.042) | (0.094) | (0.140) | (0.070) | (0.037) |
| *N* | 2903 | 446 | 749 | 930 | 778 |

NOTES -Standard errors in parentheses. * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$. n.i. means not included in the analysis. - means dropped because of collinearity.

**Table A7.** *Log-hourly wage regressions for France*

| | 20-59 | | 20-29 | | 30-39 | | 40-49 | | 50-59 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Nationality | 0.093*** | 0.028 | -0.148 | 0.061 | 0.125*** | 0.075 | 0.067** | -0.040 | 0.103*** | 0.134** |
| | (0.019) | (0.025) | (0.121) | (0.137) | (0.041) | (0.062) | (0.031) | (0.041) | (0.032) | (0.061) |
| Age | 0.016*** | 0.013** | n.i | n.i | n.i | n.i | n.i | n.i | n.i | n.i |
| | (0.005) | (0.006) | | | | | | | | |
| Age squared | -0.000 | -0.000 | n.i | n.i | n.i | n.i | n.i | n.i | n.i | n.i |
| | (0.000) | (0.000) | | | | | | | | |
| Education 2 | 0.072*** | 0.048** | 0.071 | 0.008 | 0.074** | 0.107* | 0.077*** | 0.031 | 0.029 | 0.100** |
| | (0.014) | (0.020) | (0.049) | (0.077) | (0.031) | (0.058) | (0.025) | (0.034) | (0.025) | (0.050) |
| Education 3 | 0.171*** | 0.139*** | 0.182*** | 0.210** | 0.160*** | 0.219*** | 0.195*** | 0.087* | 0.167*** | 0.259*** |
| | (0.019) | (0.027) | (0.061) | (0.091) | (0.038) | (0.073) | (0.033) | (0.046) | (0.037) | (0.076) |
| # children 0-2 | 0.040** | -0.025 | 0.043 | -0.089* | 0.011 | -0.014 | 0.065 | -0.045 | - | - |
| | (0.016) | (0.023) | (0.046) | (0.054) | (0.020) | (0.042) | (0.040) | (0.075) | | |
| # children 3-5 | 0.013 | 0.034* | -0.048 | 0.020 | 0.003 | 0.034 | -0.008 | 0.057 | - | - |
| | (0.014) | (0.021) | (0.060) | (0.058) | (0.018) | (0.039) | (0.028) | (0.047) | | |
| # children 6-11 | 0.027*** | 0.005 | 0.075 | 0.004 | 0.053*** | 0.008 | -0.003 | -0.016 | 0.032 | -0.002 |
| | (0.009) | (0.013) | (0.130) | (0.083) | (0.014) | (0.025) | (0.014) | (0.020) | (0.034) | (0.064) |
| # children older than 12 | 0.023*** | 0.010 | - | - | 0.035 | -0.006 | 0.024** | 0.008 | 0.022* | 0.002 |
| | (0.007) | (0.008) | | | (0.026) | (0.028) | (0.010) | (0.012) | (0.012) | (0.014) |
| Partnership status | 0.034** | -0.002 | 0.050 | 0.036 | 0.022 | -0.002 | 0.101*** | -0.040* | 0.019 | -0.002 |
| | (0.015) | (0.014) | (0.034) | (0.044) | (0.027) | (0.036) | (0.030) | (0.023) | (0.029) | (0.032) |
| Degree of urbanization | 0.029** | 0.043*** | 0.035 | 0.088* | 0.017 | 0.029 | 0.037 | 0.002 | 0.025 | 0.100*** |
| | (0.014) | (0.016) | (0.040) | (0.050) | (0.025) | (0.040) | (0.025) | (0.027) | (0.027) | (0.033) |
| Firm size | 0.104*** | 0.116*** | 0.081** | 0.007 | 0.119*** | 0.108*** | 0.143*** | 0.134*** | 0.074** | 0.162*** |
| | (0.014) | (0.015) | (0.035) | (0.043) | (0.027) | (0.035) | (0.026) | (0.024) | (0.030) | (0.028) |
| Type of contract | 0.097*** | 0.158*** | 0.081** | 0.045 | 0.077** | 0.193*** | 0.179*** | 0.251*** | 0.208*** | 0.149*** |
| | (0.022) | (0.020) | (0.037) | (0.043) | (0.039) | (0.047) | (0.049) | (0.034) | (0.066) | (0.046) |
| Managerial position | 0.091*** | 0.066*** | 0.027 | 0.088** | 0.079*** | 0.051* | 0.114*** | 0.052** | 0.123*** | 0.064** |
| | (0.011) | (0.014) | (0.034) | (0.043) | (0.019) | (0.031) | (0.019) | (0.023) | (0.023) | (0.026) |
| Occupation 2 | -0.180*** | -0.068*** | -0.119** | 0.031 | -0.160*** | -0.077** | -0.178*** | -0.065** | -0.205*** | -0.105*** |
| | (0.017) | (0.018) | (0.054) | (0.058) | (0.028) | (0.039) | (0.030) | (0.032) | (0.034) | (0.036) |
| Occupation 3 | -0.288*** | -0.194*** | -0.177** | 0.001 | -0.207*** | -0.197*** | -0.340*** | -0.265*** | -0.286*** | -0.210*** |
| | (0.025) | (0.021) | (0.074) | (0.069) | (0.046) | (0.048) | (0.044) | (0.036) | (0.050) | (0.041) |
| Occupation 4 | -0.240*** | -0.232*** | -0.126 | 0.057 | -0.171*** | -0.179*** | -0.235*** | -0.324*** | -0.359*** | -0.337*** |
| | (0.027) | (0.023) | (0.078) | (0.069) | (0.048) | (0.052) | (0.050) | (0.039) | (0.058) | (0.047) |
| Occupation 5 | -0.271*** | -0.361*** | -0.078 | -0.109 | -0.237*** | -0.290*** | -0.288*** | -0.429*** | -0.332*** | -0.401*** |
| | (0.019) | (0.033) | (0.064) | (0.102) | (0.036) | (0.076) | (0.032) | (0.054) | (0.035) | (0.062) |
| Occupation 6 | -0.357*** | -0.338*** | -0.163** | -0.123 | -0.315*** | -0.209*** | -0.376*** | -0.412*** | -0.442*** | -0.398*** |
| | (0.027) | (0.026) | (0.077) | (0.089) | (0.053) | (0.067) | (0.049) | (0.043) | (0.050) | (0.048) |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Activity sector 2 | -0.050*** | -0.008 | -0.025 | -0.052 | -0.110*** | -0.071 | -0.018 | 0.036 | -0.042 | 0.015 |
| | (0.015) | (0.031) | (0.042) | (0.103) | (0.026) | (0.071) | (0.026) | (0.051) | (0.029) | (0.063) |
| Activity sector 3 | -0.112*** | -0.104*** | -0.040 | -0.006 | -0.146*** | -0.082 | -0.101*** | -0.075* | -0.167*** | -0.178*** |
| | (0.017) | (0.026) | (0.045) | (0.080) | (0.031) | (0.061) | (0.029) | (0.041) | (0.038) | (0.052) |
| Activity sector 4 | -0.224*** | -0.103** | -0.162 | -0.084 | -0.192*** | -0.118 | -0.203* | -0.092 | -0.413*** | -0.081 |
| | (0.046) | (0.042) | (0.099) | (0.100) | (0.071) | (0.109) | (0.110) | (0.069) | (0.117) | (0.103) |
| Activity sector 5 | -0.043* | 0.046 | 0.001 | -0.037 | -0.015 | 0.065 | -0.064 | 0.063 | -0.066 | 0.136** |
| | (0.024) | (0.031) | (0.064) | (0.095) | (0.039) | (0.073) | (0.049) | (0.051) | (0.053) | (0.059) |
| Activity sector 6 | -0.087*** | -0.060* | -0.086 | -0.008 | -0.134*** | -0.067 | -0.044 | -0.008 | -0.027 | -0.079 |
| | (0.028) | (0.032) | (0.081) | (0.097) | (0.047) | (0.079) | (0.049) | (0.054) | (0.059) | (0.061) |
| Activity sector 7 | -0.100*** | -0.082*** | -0.012 | -0.057 | -0.197*** | -0.153*** | -0.090*** | -0.043 | -0.083** | -0.056 |
| | (0.019) | (0.024) | (0.067) | (0.086) | (0.036) | (0.057) | (0.033) | (0.039) | (0.033) | (0.044) |
| Activity sector 8 | -0.163*** | -0.109*** | -0.210** | -0.022 | -0.173*** | -0.164*** | -0.170*** | -0.064* | -0.148*** | -0.110** |
| | (0.022) | (0.023) | (0.089) | (0.075) | (0.037) | (0.052) | (0.038) | (0.037) | (0.042) | (0.043) |
| Activity sector 9 | -0.132*** | -0.152*** | -0.045 | -0.074 | -0.134** | -0.191*** | -0.115** | -0.113** | -0.213*** | -0.138*** |
| | (0.028) | (0.028) | (0.080) | (0.084) | (0.054) | (0.066) | (0.050) | (0.047) | (0.055) | (0.053) |
| Part-time | n.i | -0.009 | n.i | -0.074 | n.i | 0.022 | n.i | 0.008 | n.i | -0.031 |
| | | (0.014) | | (0.046) | | (0.035) | | (0.022) | | (0.025) |
| Inverse Mills ratio | n.i | -0.095* | n.i | 0.080 | n.i | -0.123 | n.i | -0.056 | n.i | 0.353 |
| | | (0.053) | | (0.131) | | (0.109) | | (0.121) | | (0.224) |
| Constant | 1.906*** | 1.896*** | 2.413*** | 1.990*** | 2.356*** | 2.136*** | 2.244*** | 2.364*** | 2.579*** | 2.169*** |
| | (0.099) | (0.145) | (0.164) | (0.211) | (0.086) | (0.129) | (0.084) | (0.093) | (0.095) | (0.183) |
| *N* | 3209 | 3120 | 466 | 440 | 899 | 611 | 1015 | 1039 | 829 | 876 |
| $R^2$ | 0.413 | 0.351 | 0.194 | 0.196 | 0.397 | 0.314 | 0.418 | 0.412 | 0.429 | 0.428 |

NOTES -We also control for eight regional dummies. Standard errors in parentheses. * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$. n.i. means not included in the analysis. - means dropped because of collinearity.

**Table A8.** *Log-hourly wage regressions for Italy*

| | 20-59 | | 20-29 | | 30-39 | | 40-49 | | 50-59 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Nationality | 0.132*** | 0.097*** | 0.097** | 0.099 | 0.107*** | 0.134*** | 0.185*** | 0.119*** | 0.231*** | 0.105** |
| | (0.016) | (0.021) | (0.043) | (0.067) | (0.027) | (0.044) | (0.028) | (0.034) | (0.047) | (0.042) |
| Age | 0.035*** | 0.017*** | n.i | n.i | n.i | n.i | n.i | n.i | n.i | n.i |
| | (0.004) | (0.005) | | | | | | | | |
| Age squared | -0.000*** | -0.000 | n.i | n.i | n.i | n.i | n.i | n.i | n.i | n.i |
| | (0.000) | (0.000) | | | | | | | | |
| Education 2 | 0.090*** | 0.113*** | 0.028 | 0.070 | 0.075*** | 0.091** | 0.094*** | 0.094*** | 0.113*** | 0.053 |
| | (0.010) | (0.022) | (0.031) | (0.068) | (0.020) | (0.036) | (0.018) | (0.031) | (0.020) | (0.090) |
| Education 3 | 0.180*** | 0.190*** | 0.096 | 0.206** | 0.192*** | 0.197*** | 0.173*** | 0.197*** | 0.241*** | 0.033 |
| | (0.019) | (0.031) | (0.070) | (0.086) | (0.034) | (0.046) | (0.031) | (0.048) | (0.038) | (0.134) |
| # children 0-2 | 0.004 | 0.032 | 0.008 | -0.119 | 0.010 | 0.037 | -0.015 | -0.009 | - | - |
| | (0.015) | (0.022) | (0.061) | (0.137) | (0.021) | (0.030) | (0.026) | (0.051) | | |
| # children 3-5 | 0.013 | 0.017 | 0.023 | -0.085 | 0.021 | 0.034 | 0.001 | -0.020 | - | - |
| | (0.014) | (0.018) | (0.081) | (0.117) | (0.020) | (0.028) | (0.021) | (0.027) | | |
| # children 6-11 | 0.008 | 0.025* | 0.017 | 0.014 | 0.010 | 0.023 | 0.003 | 0.024 | -0.001 | 0.014 |
| | (0.009) | (0.013) | (0.101) | (0.146) | (0.018) | (0.023) | (0.013) | (0.016) | (0.026) | (0.072) |
| # children older than 12 | 0.029*** | 0.002 | 0.000 | -0.289 | 0.068** | 0.024 | 0.035*** | 0.013 | 0.023** | -0.014 |
| | (0.007) | (0.008) | (0.000) | (0.435) | (0.033) | (0.028) | (0.011) | (0.011) | (0.011) | (0.012) |
| Partnership status | 0.032** | -0.015 | 0.081* | 0.069 | 0.034 | -0.034 | 0.025 | -0.030 | 0.049* | 0.055 |
| | (0.013) | (0.015) | (0.043) | (0.051) | (0.022) | (0.025) | (0.023) | (0.024) | (0.026) | (0.047) |
| Degree of urbanization | 0.002 | -0.026** | -0.009 | -0.014 | 0.028 | -0.026 | -0.019 | -0.054*** | -0.010 | -0.022 |
| | (0.011) | (0.013) | (0.031) | (0.043) | (0.020) | (0.026) | (0.018) | (0.021) | (0.021) | (0.025) |
| Firm size | 0.137*** | 0.142*** | 0.171*** | 0.103** | 0.128*** | 0.146*** | 0.138*** | 0.159*** | 0.127*** | 0.108*** |
| | (0.010) | (0.012) | (0.027) | (0.041) | (0.019) | (0.024) | (0.017) | (0.019) | (0.021) | (0.023) |
| Type of contract | 0.186*** | 0.203*** | 0.163*** | 0.208*** | 0.197*** | 0.178*** | 0.174*** | 0.232*** | 0.207*** | 0.189*** |
| | (0.017) | (0.017) | (0.035) | (0.041) | (0.033) | (0.034) | (0.033) | (0.031) | (0.043) | (0.040) |
| Managerial position | 0.133*** | 0.090*** | 0.141*** | 0.092 | 0.101*** | 0.111*** | 0.142*** | 0.080*** | 0.148*** | 0.071*** |
| | (0.011) | (0.014) | (0.040) | (0.063) | (0.020) | (0.028) | (0.017) | (0.022) | (0.020) | (0.026) |
| Occupation 2 | -0.128*** | -0.102*** | 0.046 | -0.030 | -0.025 | -0.128*** | -0.185*** | -0.071** | -0.139*** | -0.127*** |
| | (0.018) | (0.019) | (0.083) | (0.090) | (0.035) | (0.038) | (0.030) | (0.030) | (0.035) | (0.034) |
| Occupation 3 | -0.198*** | -0.158*** | -0.037 | -0.075 | -0.102** | -0.180*** | -0.257*** | -0.115*** | -0.205*** | -0.205*** |
| | (0.021) | (0.021) | (0.090) | (0.094) | (0.040) | (0.043) | (0.033) | (0.034) | (0.039) | (0.039) |
| Occupation 4 | -0.223*** | -0.284*** | -0.025 | -0.129 | -0.128*** | -0.280*** | -0.293*** | -0.264*** | -0.245*** | -0.420*** |
| | (0.023) | (0.024) | (0.094) | (0.098) | (0.046) | (0.048) | (0.037) | (0.039) | (0.046) | (0.047) |
| Occupation 5 | -0.275*** | -0.354*** | -0.025 | -0.095 | -0.159*** | -0.348*** | -0.364*** | -0.372*** | -0.316*** | -0.507*** |
| | (0.020) | (0.028) | (0.084) | (0.111) | (0.038) | (0.051) | (0.032) | (0.043) | (0.038) | (0.057) |
| Occupation 6 | -0.336*** | -0.441*** | -0.100 | -0.173 | -0.219*** | -0.379*** | -0.417*** | -0.429*** | -0.371*** | -0.559*** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | (0.024) | (0.027) | (0.099) | (0.135) | (0.048) | (0.062) | (0.040) | (0.042) | (0.045) | (0.047) |
| Activity sector 2 | 0.016 | 0.049* | 0.042 | -0.071 | 0.009 | 0.123** | -0.004 | 0.038 | 0.020 | 0.088 |
| | (0.013) | (0.028) | (0.037) | (0.086) | (0.024) | (0.054) | (0.022) | (0.045) | (0.026) | (0.057) |
| Activity sector 3 | -0.073*** | 0.029 | -0.029 | 0.048 | -0.094*** | 0.006 | -0.094*** | 0.012 | -0.013 | 0.059 |
| | (0.015) | (0.021) | (0.042) | (0.064) | (0.027) | (0.037) | (0.027) | (0.036) | (0.035) | (0.048) |
| Activity sector 4 | -0.133*** | -0.085*** | -0.102 | -0.071 | -0.111* | -0.199*** | -0.152*** | -0.079 | -0.148** | -0.054 |
| | (0.030) | (0.030) | (0.075) | (0.082) | (0.060) | (0.062) | (0.053) | (0.049) | (0.070) | (0.065) |
| Activity sector 5 | 0.203*** | 0.216*** | 0.060 | 0.194** | 0.118*** | 0.175*** | 0.228*** | 0.269*** | 0.299*** | 0.259*** |
| | (0.019) | (0.025) | (0.066) | (0.081) | (0.037) | (0.045) | (0.031) | (0.041) | (0.039) | (0.054) |
| Activity sector 6 | -0.034* | -0.009 | 0.065 | -0.048 | -0.030 | -0.083** | -0.031 | 0.032 | -0.052 | 0.110** |
| | (0.020) | (0.023) | (0.061) | (0.074) | (0.037) | (0.041) | (0.034) | (0.037) | (0.042) | (0.048) |
| Activity sector 7 | 0.144*** | 0.131*** | 0.047 | -0.181 | 0.191*** | 0.187*** | 0.157*** | 0.115*** | 0.101*** | 0.155*** |
| | (0.018) | (0.024) | (0.112) | (0.170) | (0.042) | (0.053) | (0.030) | (0.036) | (0.031) | (0.042) |
| Activity sector 8 | 0.073*** | 0.098*** | 0.063 | 0.008 | 0.036 | 0.086** | 0.055* | 0.074** | 0.084*** | 0.177*** |
| | (0.019) | (0.018) | (0.095) | (0.068) | (0.041) | (0.036) | (0.031) | (0.029) | (0.031) | (0.036) |
| Activity sector 9 | 0.014 | -0.055** | 0.002 | -0.174** | -0.045 | -0.003 | 0.002 | -0.035 | 0.096* | -0.048 |
| | (0.025) | (0.025) | (0.078) | (0.080) | (0.046) | (0.053) | (0.041) | (0.040) | (0.052) | (0.048) |
| Part-time | n.i | -0.068*** | n.i | 0.020 | n.i | -0.006 | n.i | -0.094*** | n.i | -0.140*** |
| | | (0.014) | | (0.054) | | (0.027) | | (0.021) | | (0.028) |
| Inverse Mills ratio | n.i | 0.019 | n.i | 0.192 | n.i | 0.030 | n.i | -0.011 | n.i | -0.096 |
| | | (0.040) | | (0.209) | | (0.064) | | (0.057) | | (0.143) |
| Constant | 1.182*** | 1.437*** | 1.729*** | 1.470*** | 1.919*** | 1.942*** | 2.189*** | 2.094*** | 2.126*** | 2.395*** |
| | (0.083) | (0.135) | (0.117) | (0.256) | (0.066) | (0.111) | (0.061) | (0.087) | (0.082) | (0.195) |
| $N$ | 5662 | 4569 | 717 | 525 | 1521 | 1255 | 1965 | 1670 | 1459 | 1119 |
| $R^2$ | 0.459 | 0.456 | 0.211 | 0.209 | 0.325 | 0.340 | 0.432 | 0.465 | 0.441 | 0.542 |

NOTES - We also control for five regional dummies. Standard errors in parentheses. * p< 0.1, ** p< 0.05, *** p< 0.01. n.i. means not included in the analysis. - means dropped because of collinearity.

**Table A9.** *Log-hourly wage regressions for the Netherlands*

| | 20-59 | | 20-29 | | 30-39 | | 40-49 | | 50-59 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Nationality | 0.071** | 0.024 | 0.267* | -0.021 | 0.032 | -0.085* | 0.153** | 0.057 | -0.089 | 0.073 |
| | (0.036) | (0.028) | (0.143) | (0.146) | (0.058) | (0.049) | (0.060) | (0.055) | (0.085) | (0.053) |
| Age | 0.054*** | 0.048*** | n.i | n.i | n.i | n.i | n.i | n.i | n.i | n.i |
| | (0.008) | (0.008) | | | | | | | | |
| Age squared | -0.001*** | -0.000*** | n.i | n.i | n.i | n.i | n.i | n.i | n.i | n.i |
| | (0.000) | (0.000) | | | | | | | | |
| Education 2 | 0.095*** | 0.070*** | 0.038 | -0.065 | 0.032 | 0.048 | 0.135*** | 0.080* | 0.075** | 0.026 |
| | (0.020) | (0.025) | (0.077) | (0.126) | (0.038) | (0.055) | (0.037) | (0.042) | (0.037) | (0.060) |
| Education 3 | 0.303*** | 0.232*** | 0.272*** | 0.184 | 0.226*** | 0.207*** | 0.357*** | 0.265*** | 0.314*** | 0.123 |
| | (0.025) | (0.033) | (0.098) | (0.126) | (0.045) | (0.065) | (0.045) | (0.062) | (0.045) | (0.089) |
| # children 0-2 | -0.001 | 0.070*** | 0.036 | 0.125** | -0.012 | -0.010 | 0.041 | 0.130** | - | - |
| | (0.021) | (0.019) | (0.080) | (0.059) | (0.026) | (0.026) | (0.046) | (0.061) | | |
| # children 3-5 | 0.038* | 0.012 | -0.031 | -0.020 | 0.059** | -0.003 | 0.039 | 0.023 | - | - |
| | (0.019) | (0.017) | (0.100) | (0.099) | (0.024) | (0.023) | (0.034) | (0.038) | | |
| # children 6-11 | 0.017 | 0.001 | 0.000 | -0.132 | 0.040** | -0.035 | 0.034* | 0.012 | -0.048 | 0.079 |
| | (0.012) | (0.013) | (0.000) | (0.095) | (0.019) | (0.025) | (0.018) | (0.018) | (0.043) | (0.051) |
| # children older than 12 | 0.018* | -0.029*** | - | - | 0.001 | -0.103*** | 0.048*** | -0.020 | 0.000 | 0.006 |
| | (0.010) | (0.011) | | | (0.051) | (0.039) | (0.017) | (0.017) | (0.016) | (0.021) |
| Partnership status | 0.060*** | -0.033* | 0.097* | 0.001 | 0.029 | -0.026 | 0.033 | -0.039 | 0.117*** | 0.005 |
| | (0.018) | (0.017) | (0.054) | (0.048) | (0.033) | (0.032) | (0.036) | (0.031) | (0.033) | (0.063) |
| Degree of urbanization | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Firm size | 0.152*** | 0.089*** | 0.214*** | 0.081 | 0.129*** | 0.097*** | 0.226*** | 0.045 | 0.072 | 0.157*** |
| | (0.024) | (0.020) | (0.060) | (0.061) | (0.040) | (0.034) | (0.048) | (0.035) | (0.053) | (0.045) |
| Type of contract | 0.064** | 0.077*** | 0.106 | 0.240*** | 0.109** | 0.051 | 0.022 | 0.095** | -0.067 | 0.121 |
| | (0.032) | (0.025) | (0.066) | (0.069) | (0.043) | (0.040) | (0.072) | (0.043) | (0.108) | (0.087) |
| Managerial position | 0.104*** | 0.062*** | 0.078 | 0.023 | 0.081*** | 0.048* | 0.119*** | 0.070** | 0.114*** | 0.072** |
| | (0.015) | (0.015) | (0.061) | (0.055) | (0.028) | (0.028) | (0.027) | (0.027) | (0.030) | (0.029) |
| Occupation 2 | -0.051*** | -0.041** | -0.032 | 0.020 | -0.028 | -0.068** | -0.092*** | -0.030 | -0.010 | -0.072* |
| | (0.020) | (0.018) | (0.071) | (0.058) | (0.034) | (0.034) | (0.035) | (0.033) | (0.040) | (0.037) |
| Occupation 3 | -0.166*** | -0.235*** | 0.017 | 0.043 | -0.174*** | -0.303*** | -0.133*** | -0.253*** | -0.236*** | -0.184*** |
| | (0.028) | (0.021) | (0.112) | (0.083) | (0.050) | (0.042) | (0.047) | (0.036) | (0.058) | (0.039) |
| Occupation 4 | -0.166*** | -0.261*** | 0.029 | -0.050 | -0.129* | -0.303*** | -0.141** | -0.316*** | -0.230*** | -0.225*** |
| | (0.035) | (0.025) | (0.094) | (0.077) | (0.071) | (0.048) | (0.064) | (0.044) | (0.067) | (0.046) |
| Occupation 5 | -0.225*** | -0.363*** | 0.004 | 0.113 | -0.198*** | -0.408*** | -0.196*** | -0.456*** | -0.326*** | -0.364*** |
| | (0.024) | (0.047) | (0.086) | (0.178) | (0.041) | (0.080) | (0.045) | (0.112) | (0.045) | (0.081) |
| Occupation 6 | -0.283*** | -0.444*** | -0.130 | 0.034 | -0.206** | -0.586*** | -0.234*** | -0.422*** | -0.438*** | -0.424*** |
| | (0.046) | (0.043) | (0.167) | (0.280) | (0.083) | (0.105) | (0.079) | (0.075) | (0.088) | (0.067) |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Activity sector 2 | -0.017 | -0.008 | 0.102 | 0.080 | -0.043 | 0.038 | -0.011 | 0.072 | -0.049 | -0.150** |
| | (0.021) | (0.038) | (0.094) | (0.144) | (0.038) | (0.062) | (0.037) | (0.078) | (0.041) | (0.074) |
| Activity sector 3 | -0.061** | -0.137*** | -0.074 | 0.109 | -0.063 | -0.120** | -0.020 | -0.125** | -0.116** | -0.256*** |
| | (0.025) | (0.032) | (0.100) | (0.121) | (0.043) | (0.058) | (0.047) | (0.057) | (0.052) | (0.068) |
| Activity sector 4 | -0.176*** | -0.278*** | -0.097 | 0.139 | -0.094 | -0.155 | -0.130 | -0.300*** | -0.421*** | -0.330*** |
| | (0.064) | (0.055) | (0.203) | (0.248) | (0.095) | (0.103) | (0.141) | (0.090) | (0.141) | (0.113) |
| Activity sector 5 | 0.055** | 0.095*** | 0.048 | 0.237* | 0.015 | 0.146** | 0.127*** | 0.061 | 0.036 | 0.047 |
| | (0.026) | (0.033) | (0.107) | (0.134) | (0.042) | (0.058) | (0.045) | (0.057) | (0.057) | (0.073) |
| Activity sector 6 | -0.022 | -0.001 | 0.206** | 0.254** | -0.025 | 0.025 | -0.057 | -0.047 | -0.040 | -0.012 |
| | (0.027) | (0.030) | (0.103) | (0.123) | (0.044) | (0.052) | (0.049) | (0.053) | (0.057) | (0.066) |
| Activity sector 7 | 0.050* | 0.094*** | 0.198 | 0.460*** | 0.033 | 0.091 | 0.075* | 0.059 | 0.006 | 0.055 |
| | (0.026) | (0.031) | (0.139) | (0.139) | (0.054) | (0.058) | (0.043) | (0.051) | (0.046) | (0.061) |
| Activity sector 8 | -0.126*** | -0.076*** | 0.016 | 0.203* | -0.118** | -0.085* | -0.146*** | -0.099** | -0.180*** | -0.096* |
| | (0.027) | (0.026) | (0.126) | (0.109) | (0.050) | (0.049) | (0.048) | (0.043) | (0.049) | (0.053) |
| Activity sector 9 | -0.108* | -0.133*** | 0.038 | -0.058 | -0.059 | -0.098 | -0.077 | -0.189*** | -0.222* | -0.113 |
| | (0.056) | (0.043) | (0.151) | (0.161) | (0.144) | (0.090) | (0.085) | (0.071) | (0.117) | (0.085) |
| Part-time | n.i | 0.010 | n.i | 0.133** | n.i | 0.047 | n.i | -0.012 | n.i | -0.018 |
| | | (0.016) | | (0.051) | | (0.031) | | (0.031) | | (0.030) |
| Inverse Mills ratio | n.i | 0.041 | n.i | -0.277 | n.i | 0.148* | n.i | 0.042 | n.i | -0.111 |
| | | (0.047) | | (0.209) | | (0.078) | | (0.104) | | (0.144) |
| Constant | 1.347*** | 1.656*** | 1.997*** | 2.228*** | 2.707*** | 2.919*** | 2.564*** | 2.871*** | 3.183*** | 2.859*** |
| | (0.165) | (0.179) | (0.207) | (0.293) | (0.105) | (0.102) | (0.122) | (0.108) | (0.152) | (0.161) |
| *N* | 1450 | 1591 | 108 | 131 | 420 | 474 | 502 | 557 | 420 | 429 |
| $R^2$ | 0.512 | 0.494 | 0.512 | 0.549 | 0.419 | 0.497 | 0.484 | 0.506 | 0.519 | 0.485 |

NOTES -Standard errors in parentheses. * $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$. n.i. means not included in the analysis. n.a. means information not available. - means dropped because of collinearity.

**Table A10.** *Log-hourly wage regressions for the United Kingdom*

| | 20-59 | | 20-29 | | 30-39 | | 40-49 | | 50-59 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Nationality | 0.022 | 0.022 | 0.069 | -0.133** | 0.062 | -0.000 | -0.013 | 0.047 | -0.004 | -0.044 |
| | (0.027) | (0.027) | (0.060) | (0.060) | (0.049) | (0.046) | (0.057) | (0.050) | (0.059) | (0.049) |
| Age | 0.045*** | 0.045*** | n.i | n.i | n.i | n.i | n.i | n.i | n.i | n.i |
| | (0.007) | (0.007) | | | | | | | | |
| Age squared | -0.000*** | -0.000*** | n.i | n.i | n.i | n.i | n.i | n.i | n.i | n.i |
| | (0.000) | (0.000) | | | | | | | | |
| Education 2 | 0.059** | 0.059** | -0.094 | -0.050 | 0.131* | 0.127 | 0.004 | 0.060 | 0.140*** | 0.172*** |
| | (0.029) | (0.029) | (0.078) | (0.082) | (0.076) | (0.084) | (0.053) | (0.062) | (0.048) | (0.057) |
| Education 3 | 0.251*** | 0.251*** | 0.069 | -0.021 | 0.285*** | 0.334*** | 0.200*** | 0.351*** | 0.350*** | 0.432*** |
| | (0.033) | (0.033) | (0.085) | (0.095) | (0.079) | (0.091) | (0.062) | (0.078) | (0.058) | (0.065) |
| # children 0-2 | -0.010 | -0.010 | -0.064 | 0.147** | -0.004 | 0.000 | -0.030 | -0.073 | - | - |
| | (0.027) | (0.027) | (0.065) | (0.059) | (0.037) | (0.047) | (0.071) | (0.111) | | |
| # children 3-5 | 0.029 | 0.029 | 0.015 | 0.052 | 0.044 | -0.002 | 0.067* | 0.005 | - | - |
| | (0.024) | (0.024) | (0.079) | (0.068) | (0.036) | (0.042) | (0.039) | (0.058) | | |
| # children 6-11 | 0.044*** | 0.044*** | -0.057 | -0.001 | 0.035 | -0.020 | 0.061** | -0.011 | 0.074 | -0.130 |
| | (0.016) | (0.016) | (0.093) | (0.058) | (0.028) | (0.028) | (0.025) | (0.031) | (0.046) | (0.116) |
| # children older than 12 | -0.009 | -0.009 | 0.020 | -0.199 | -0.021 | -0.099*** | -0.007 | -0.008 | 0.003 | -0.041** |
| | (0.011) | (0.011) | (0.412) | (0.202) | (0.040) | (0.030) | (0.018) | (0.017) | (0.017) | (0.016) |
| Partnership status | 0.056** | 0.056** | 0.116*** | 0.035 | 0.019 | 0.019 | 0.045 | 0.012 | 0.095* | -0.054 |
| | (0.023) | (0.023) | (0.043) | (0.041) | (0.048) | (0.036) | (0.044) | (0.031) | (0.051) | (0.038) |
| Degree of urbanization | -0.009 | -0.034*** | -0.117 | 0.034 | -0.057 | 0.037 | -0.063 | -0.013 | -0.038 | 0.017 |
| | (0.011) | (0.010) | (0.118) | (0.116) | (0.105) | (0.102) | (0.083) | (0.075) | (0.069) | (0.059) |
| Firm size | 0.056** | 0.003 | 0.158*** | 0.099** | 0.094** | 0.024 | 0.187*** | 0.109*** | 0.230*** | 0.174*** |
| | (0.023) | (0.017) | (0.056) | (0.050) | (0.044) | (0.043) | (0.042) | (0.036) | (0.045) | (0.036) |
| Type of contract | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| Managerial position | 0.111*** | 0.089*** | 0.172*** | 0.054 | 0.009 | 0.160*** | 0.098*** | 0.070** | 0.178*** | 0.039 |
| | (0.018) | (0.017) | (0.045) | (0.044) | (0.037) | (0.035) | (0.033) | (0.031) | (0.036) | (0.030) |
| Occupation 2 | -0.121*** | -0.111*** | -0.105 | -0.042 | -0.100* | -0.167*** | -0.061 | -0.102** | -0.180*** | -0.101** |
| | (0.027) | (0.023) | (0.063) | (0.061) | (0.055) | (0.048) | (0.048) | (0.041) | (0.055) | (0.045) |
| Occupation 3 | -0.310*** | -0.253*** | -0.297*** | -0.203*** | -0.461*** | -0.318*** | -0.279*** | -0.254*** | -0.197*** | -0.236*** |
| | (0.039) | (0.023) | (0.073) | (0.061) | (0.090) | (0.048) | (0.079) | (0.042) | (0.074) | (0.042) |
| Occupation 4 | -0.290*** | -0.363*** | -0.174** | -0.274*** | -0.444*** | -0.415*** | -0.158** | -0.387*** | -0.330*** | -0.325*** |
| | (0.038) | (0.024) | (0.074) | (0.061) | (0.076) | (0.053) | (0.076) | (0.044) | (0.081) | (0.045) |
| Occupation 5 | -0.278*** | -0.451*** | -0.207*** | -0.430** | -0.309*** | -0.645*** | -0.320*** | -0.387*** | -0.227*** | -0.438*** |
| | (0.026) | (0.050) | (0.066) | (0.179) | (0.052) | (0.110) | (0.050) | (0.090) | (0.050) | (0.081) |
| Occupation 6 | -0.432*** | -0.362*** | -0.304*** | -0.333*** | -0.499*** | -0.409*** | -0.451*** | -0.378*** | -0.369*** | -0.318*** |
| | (0.033) | (0.035) | (0.075) | (0.094) | (0.066) | (0.080) | (0.060) | (0.071) | (0.069) | (0.058) |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Activity sector 2 | 0.076*** | -0.042 | 0.167** | 0.141 | 0.010 | -0.102 | 0.083* | -0.071 | 0.089* | -0.103 |
| | (0.026) | (0.046) | (0.066) | (0.106) | (0.057) | (0.100) | (0.044) | (0.085) | (0.049) | (0.085) |
| Activity sector 3 | -0.042 | -0.230*** | -0.042 | -0.190** | -0.064 | -0.242*** | 0.013 | -0.249*** | -0.039 | -0.246*** |
| | (0.030) | (0.036) | (0.068) | (0.083) | (0.057) | (0.081) | (0.061) | (0.065) | (0.063) | (0.068) |
| Activity sector 4 | -0.297*** | -0.303*** | -0.372*** | -0.342*** | -0.208* | -0.395*** | -0.406*** | -0.343*** | -0.192 | -0.180* |
| | (0.063) | (0.052) | (0.103) | (0.110) | (0.109) | (0.111) | (0.144) | (0.100) | (0.190) | (0.101) |
| Activity sector 5 | 0.205*** | 0.118*** | 0.186** | 0.130 | 0.194*** | 0.058 | 0.295*** | 0.167** | 0.141** | 0.070 |
| | (0.033) | (0.039) | (0.074) | (0.083) | (0.066) | (0.083) | (0.061) | (0.076) | (0.067) | (0.077) |
| Activity sector 6 | 0.019 | -0.077** | 0.178** | 0.005 | -0.020 | -0.155* | -0.024 | -0.096 | 0.054 | -0.049 |
| | (0.032) | (0.038) | (0.076) | (0.078) | (0.060) | (0.081) | (0.064) | (0.073) | (0.063) | (0.074) |
| Activity sector 7 | 0.149*** | 0.023 | 0.213** | 0.116 | 0.182** | -0.072 | 0.093 | 0.039 | 0.134* | 0.015 |
| | (0.037) | (0.038) | (0.085) | (0.085) | (0.077) | (0.084) | (0.066) | (0.069) | (0.071) | (0.069) |
| Activity sector 8 | -0.069** | -0.086*** | -0.047 | -0.016 | -0.031 | -0.199*** | -0.120** | -0.080 | -0.085 | -0.097 |
| | (0.031) | (0.033) | (0.091) | (0.071) | (0.063) | (0.073) | (0.056) | (0.061) | (0.057) | (0.060) |
| Activity sector 9 | -0.025 | -0.149*** | 0.200* | -0.134 | -0.023 | -0.211** | -0.000 | -0.169** | -0.123 | -0.145* |
| | (0.047) | (0.046) | (0.113) | (0.098) | (0.096) | (0.104) | (0.085) | (0.084) | (0.094) | (0.086) |
| Part-time | n.i. | -0.044** | n.i. | -0.011 | n.i. | -0.018 | n.i. | -0.082*** | n.i. | -0.052* |
| | | (0.017) | | (0.056) | | (0.039) | | (0.030) | | (0.030) |
| Inverse Mills ratio | n.i. | 0.117** | n.i. | -0.109 | n.i. | 0.068 | n.i. | 0.214* | n.i. | 0.318** |
| | | (0.059) | | (0.092) | | (0.084) | | (0.124) | | (0.158) |
| Constant | 1.416*** | 1.568*** | 2.301*** | 2.441*** | 2.524*** | 2.496*** | 2.570*** | 2.375*** | 2.312*** | 2.314*** |
| | (0.152) | (0.151) | (0.157) | (0.184) | (0.148) | (0.167) | (0.127) | (0.144) | (0.124) | (0.118) |
| *N* | 1922 | 2363 | 267 | 341 | 525 | 549 | 583 | 787 | 547 | 686 |
| $R^2$ | 0.421 | 0.431 | 0.476 | 0.335 | 0.371 | 0.506 | 0.423 | 0.437 | 0.387 | 0.439 |

NOTES - Standard errors in parentheses. * p< 0.1, ** p< 0.05, *** p< 0.01. n.i. means not included in the analysis. n.a. means not available information. - means dropped because of collinearity.