DO FIRMS SHARE THEIR PROFITS EQUALLY WITH WOMEN AND MEN? THE ROLE OF HUMAN CAPITAL, MANAGERIAL POSITIONS AND UNIONS

Kevin Pineda-Hernández, François Rycx, Mélanie Volral, Alexandre Waroquier

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Do Firms Share their Profits Equally with Women and Men?
The Role of Human Capital, Managerial Positions and Unions

Kevin Pineda-Hernández
ULB (CEBRIG, DULBEA), UMONS (Soci&ter)

François Rycx
ULB (CEBRIG, DULBEA), UMONS (Soci&ter), UCLouvain (IRES), GLO and IZA

Mélanie Volral
UMONS (Soci&ter) and ULB (CEBRIG, DULBEA)

Alexandre Waroquier
ULB (CEBRIG, DULBEA), UMONS (Soci&ter)

Abstract

While rent-sharing is known to vary according to worker characteristics, the impact of profits on the gender wage gap warrants closer examination. Most studies adopt a single-gender view, neglecting factors tied to bargaining power. Our paper aims to fill this gap by leveraging rich matched employer-employee data covering the Belgian private sector from 1999 to 2016 and by examining whether the relationship between rent-sharing and gender depends on variables reflecting bargaining power, i.e. level of education, field of study, tenure, occupation and type of wage agreement. Accounting for a wide range of individual, job and firm characteristics, and addressing potential endogeneity issues, we find a wage-profit elasticity of 2.8%, which does not differ statistically between women and men. Our results further indicate that firms share more of their profits with workers who have greater bargaining power, as assessed by our moderators. This result holds overall for both women and men, so that the price effect associated with rent-sharing is generally insignificant in explaining the gender wage gap. Conversely, given that women, regardless of their bargaining power, tend to be employed in less profitable firms than their male counterparts, the quantity effect associated with rent-sharing appears to play a non-negligible role. In short, our findings suggest that it is not so much the unequal sharing of profits within companies that fuels the gender pay gap, but rather the segregation of women, particularly those with limited bargaining power, into less profitable companies.

Keywords: Rent-sharing, linked employer-employee data, wage decompositions, instrumental variables, gender wage gap, bargaining power.

JEL classification: C26, J16, J24, J31.

Corresponding author:
Alexandre Waroquier
Université de Mons
Place Warocqué, 17
7000 Mons, Belgium
E-mail address: alexandre.warquier@umons.ac.be

1. Introduction

It is well documented that there exists, in virtually all countries, a gap between the wages paid to men and those paid to women (see e.g. Goldin *et al.*, 2017; Barth *et al.*, 2021; Biasi and Sarsons, 2022). For instance, a recent study by the OECD (2023) estimates that this gender wage gap, measured as the difference between median earnings of men and women relative to median earnings of men, amounts to 11.9% for the OECD. The literature points to several main factors explaining these gender-based disparities in earnings. Firstly, human capital differences between men and women are considered as an important source of wage variation. Despite women now achieving higher educational attainment than men and a narrowing gap in labor market experience, there remain important differences in the fields of study chosen, which have a substantial impact on the gender pay gap (Blau and Kahn, 2017). Moreover, evidence shows that the sorting of women into lower-paying sectors, firms and occupations still explains a significant part of the income inequalities (Bayard *et al.*, 2003; Card *et al.*, 2016; Morchio and Moser, 2024). As regards the unexplained part of the gender wage gap, studies mention the role of discrimination (Barth and Dale-Olsen, 2009; Hirsch *et al.*, 2010), which can translate into lower earnings for women.

Besides, numerous studies have shown that companies share their profits with their employees by paying them higher salaries (i.e. they provide evidence of rent-sharing). Early studies establish that inter-industry wage differentials could be explained by differences in firm profits (Dickens and Katz, 1987; Katz and Summers, 1989) and that rent-sharing occurs within companies (Christofides and Oswald, 1992; Abowd and Lemieux, 1993; Van Reenen, 1996; Hildreth and Oswald, 1997). More recently, analyzes have taken benefit from linked employer-employee datasets (Margolis and Salvanes, 2001; Arai, 2003; Fakhfakh and FitzRoy, 2004), which yield wage-profit elasticities included between 0.01 and 0.1 (Dobbelaere and Mairesse, 2018).

Although rent-sharing has been analyzed from different perspectives, only a few studies have examined its potential role in the gender wage gap, and they have not reached a consensus. They include Nekby (2003), who investigates the case of Sweden for the years 1991 and 1995 and finds that men benefit more from the extraction of rents than women. Estimates are between 30 to 65% lower for the latter. According to Nekby, gender differences could be explained by the sorting within companies to positions with different possibilities of rent-sharing. In contrast,

differences in the average profits of firms in which women and men are employed explain only a small fraction of the gender wage gap associated to rent-sharing. Taking the analysis a step further, the author also finds that differences between men and women increase along the wage distribution. Rycx and Tojerow (2004) also investigate the contribution of rent-sharing to the gender wage gap in the Belgian private sector in 1995. In contrast to Nekby, they show that the wage-profit elasticity does not significantly differ for male workers compared to their female counterparts. Instead, the authors find that women are on average employed in less profitable firms and therefore conclude that a substantial part of the overall gender wage gap can thus be explained by the segregation of women among companies with lower profits-per-employee. On the contrary, Matano and Naticchioni (2013) find larger rent-sharing estimates for men than for women, causing an increasing wage gap along the wage distribution in Italy for the years 1996 to 2003. As they note there is no segregation of women into less profitable firms, they suggest some kind of glass ceiling effect within firms. Possible explanations include employer discrimination towards female workers or different bargaining power for both genders.

The few aforementioned studies documenting gender-based disparities in rent-sharing are often limited to a single-gender perspective. Yet, the relationship between rent-sharing and gender could be more complex and contingent on other worker- or job-related characteristics. Recent developments on the rent-sharing process call indeed for the importance of the workers' bargaining power to explain the extraction of some rents. This article investigates whether certain moderating variables – i.e. level of education, field of study, tenure, occupation (reflecting individual bargaining power), and type of wage agreement (reflecting collective bargaining power) – influence the extent to which men and women benefit from the extraction of firm profits. Some of these features have already been documented as influencing rent-sharing across the workforce as a whole, independently of gender.

Regarding firstly the potential role of human capital and job variables in the wage-profit elasticity, some studies suggest that firms tend to share more profits with higher educated workers and those with a higher tenure (e.g. Arai and Heyman, 2009, for Sweden; Martins, 2009, for Portugal), with white collars (e.g. Arai and Heyman, 2001, for Sweden; Matano and Naticchioni, 2017, for Italy) and with workers in strategic positions like managers (e.g. Bloesch *et al.*, 2022, for Denmark). This could be explained by the fact that workers who acquired more skills and firm-specific human capital are less easily replaceable and may therefore enjoy a greater bargaining power in the extraction of rents (Deming, 2023). Secondly, some studies also

look at the role played by labor market institutions. It appears that rent-sharing is greater when the wages are (re)negotiated at the firm level (Guertzgen, 2009; Rusinek and Rycx, 2013).

In sum, while some studies investigate the variables causing the elasticities between profits and wages to differ between groups of workers, there is room for further developments, particularly in analyzing the role played by these moderators in the influence of profits on the gender wage gap. This paper contributes to the existing literature by examining whether individual bargaining power, proxied by human capital and occupation variables, and collective bargaining power, captured through the role of unions, generate differential rent-sharing outcomes between men and women. To do so, we first examine whether the wage-profit elasticity is different for male and female workers, independently of the influence of our moderating variables. We decompose the gender wage gap to assess which proportion can be attributed to: i) differences in the wage-profit elasticities (i.e. price effect); and ii) differences in the average profits of the firms in which women and men are employed (i.e. composition effect). Next, we test whether this result varies as a function of workers' human capital (i.e. level of education, field of study, years of seniority), occupation and union coverage (i.e. being covered by an industry-level wage agreement only or an agreement which has been renegotiated at the company level[1]). As far as we know, our study is the first to provide evidence of whether rent-sharing varies for women and men according to these variables reflective of the individual and collective bargaining power of workers. While numerous papers have brought to light disparities in the wages of tertiary-educated workers according to their degree (Altonji *et al.*, 2012; Webber, 2014), to the best of our knowledge, the influence of the field of study on the relationship between wages and profits has remained unexplored. Moreover, the individual's status (i.e. white or blue collars) is generally used in the literature as a proxy for the level of skills, though it can reveal important disparities in terms of productivities. For example, as suggested by Matano and Naticchioni (2017), secretaries and managers are white-collar workers whose productivities and wages strongly differ. That is why it might be more relevant to rely on the worker's occupation.

[1] Wage bargaining in Belgium occurs at three levels: the national level, the sectoral level and the company level. They generally occur every two years on a pyramidal basis. Firstly, a national collective agreement sets minimum wages and a margin for any wage increase at the two lower levels. Secondly, industry agreements improve the national agreement. Employers and unions are brought together within Joint Committees. Finally, sectoral agreements can be enhanced at the company level through a new round of negotiations. The heart of the wage bargaining lies at the sectoral level in Belgium.

Our empirical approach relies on a rich, matched employer-employee dataset of around 600,000 workers in the Belgian private sector. Our database provides detailed cross-sectional information on workers and their workplace between 1999 and 2016 (e.g. age, gender, tenure, education, wages, part-time work, occupations at three-digit ISCO level, sectors at three-digit NACE level, firm size and profits)[2]. We estimate wage-profit elasticities for different groups of workers, subdivided by the different moderating variables cited above. An extensive set of observables is also controlled for. To account for the endogeneity of profits, the estimations are run using a two-stage least squares (2SLS) method. Three specific instruments are used: i) the lagged value of profits per hour of the firm, which influences the current value of profits; ii) a dummy variable indicating whether the firm is more than 50% privately owned, which may affect firm profitability due to the profit-maximizing behavior typically associated with private ownership, while having a limited impact on wages, since it is recommended for firms to offer competitive wages in order to attract and retain a stable workforce; and iii) the profits per hour worked of firms in the same three-digit NACE sector in other Belgian regions[3], which can influence firm profits given common national economic shocks while being only partially linked to wage determination due to the specific characteristics of each local labor market. The gender wage gap is finally decomposed using the Oaxaca-Blinder (OB) procedure.

Our main results can be summarized as follows. Our instrumented wage-profit elasticities are estimated at 2.9% for men and 2.4% for women respectively and are not statistically different. However, as women are concentrated in less profitable companies, rent-sharing contributes to the gender wage gap through the channel of segregation. When including the role of our moderating variables, it appears that rent-sharing benefits the most to workers who are tertiary educated, regardless of their field of study, have at least 10 years of tenure, are in a managerial position or are covered by a company-level agreement. The estimated wage-profit elasticities are between one third and one half higher for these workers than for their counterparts with a lower level of education, fewer years of seniority, in other occupations within the firm and only covered by a sectoral-level wage agreement. Overall, the estimates do not statistically differ between men and women, indicating that the moderating variables operate similarly across genders in shaping rent-sharing outcomes. A notable exception arises in the subsample of individuals whose wages have been renegotiated at the firm level, where men capture a

[2] ISCO is the classification of occupation groups managed by the International Labor Organisation. NACE is the statistical classification of economic activities in the European Community.
[3] Belgium is made up of three regions: Flanders, Wallonia and Brussels.

significantly higher share of firm profits. This suggests that while bargaining mechanisms generally enhance the ability to extract part of the firm surplus for both men and women, firm-level wage agreements may amplify gender disparities in rent-sharing. Turning to the composition effect, it is significantly smaller compared to the benchmark for workers with tertiary education, a non-STEM degree, and at least 10 years of tenure. In contrast, it is significantly larger for workers with secondary education, less than 10 years of tenure, who are not in managerial positions, and are covered by a sectoral wage agreement.

The remainder of this paper is organized as follows: Section 2 exposes the empirical strategy used in our analysis. Section 3 presents the employer-employee dataset and examines some descriptive statistics. Section 4 reports our benchmark results from wage regressions and decompositions. Section 5 details the results for our different moderating variables. Finally, Section 6 provides a conclusion.

2. Empirical strategy

This article studies the extent to which private firms in Belgium share rents with women and men. Our empirical strategy relies on weighted log-log regressions to assess the wage-profit elasticities according to various moderators likely to influence women and men's bargaining power (i.e. level of education, field of study, tenure, occupation and type of wage agreement). The full benchmark specification is the following:

$$Log(wage_{ijt}) = \beta_0 + \beta_1 Log(profits_{jt}) + \underline{\mathbf{k}_{ijt}}\underline{\boldsymbol{\vartheta}} + \underline{\mathbf{g}_{ijt}}\underline{\boldsymbol{\lambda}} + \underline{\mathbf{f}_{ijt}}\underline{\boldsymbol{\xi}} + \delta_t + \varepsilon_{ijt} \qquad (1)$$

where the dependent variable is the logarithmic real gross hourly wage of a worker *i* working in firm *j* in year *t*. The main explanatory variable is the logarithm of the amount of profits per hour worked in firm *j* in year *t*. Equation (1) also includes the vector $\underline{\mathbf{k}_{ijt}}$ which contains a set of variables controlling for observable worker characteristics. More precisely, it includes 9 dummies for age (people who are between 15 and 19 years old being the reference category), 2 dummies for the worker's highest completed level of education (i.e. at most a degree from upper-secondary and tertiary education; lower secondary education being the reference category), the worker's tenure (measured in years) and its square and 2 dummies for the type of household of the individual (i.e. household with children living at home and other types of

households; household without children living at home being the reference category). The vector $\underline{\mathbf{g}_{ijt}}$, also included in equation (1), controls for employment characteristics. It contains a dummy for part-time work, a dummy for overtime work, 2 dummies for the type of employment contract (i.e. fixed-term contract and apprenticeship/internship contract; permanent contract being the reference category) and 35 dummies for the occupation at the two-digit ISCO level. The vector $\underline{\mathbf{f}_{ijt}}$ contains observations on firm characteristics, including the size of the firm measured as the logarithmic number of full-time equivalent employees, 2 dummies for the region where the firm is located (i.e. Flanders and Wallonia; Brussels being the reference category), a dummy indicating whether wages are collectively renegotiated at the firm level and 208 dummies for the sector of activity at the three-digit NACE level. δ_t is a set of year dummies (17 dummies), and ε_{ijt} is the error term.

We first estimate the aforementioned specification using the ordinary least squares (OLS) method. Nevertheless, this technique does not account for the highly probable endogeneity issue which can arise while estimating the relationship between profits and wages. Indeed, several mechanisms are at work in the estimation of rent-sharing, which are likely to cause a simultaneity bias. Firstly, any rise in the individual's gross hourly wages will automatically decrease the level of the firm profits (i.e. value added minus remuneration of labor). Secondly, in line with efficiency wages theory predictions, higher wages might encourage workers to be more productive, suggesting thus a positive relationship between wages and profits (Arai and Heyman, 2009). Finally, an unobserved external shock could simultaneously affect both wages and profits, thereby generating a spurious correlation between the two variables. Empirical evidence shows that, when the endogeneity is not controlled for, it yields to a lower estimation of rent-sharing (e.g. Estevão and Tevlin, 2003). As a result, OLS estimates are likely to be downward biased and inconsistent. To address this econometric issue, this article relies on a two-stage least squares (2SLS) estimator using as instruments all explanatory variables included in equation (1) plus three specific instrumental variables (Z) as follows:

First stage

$$Log(profits_{jt}) = \alpha_0 + \alpha_1 Z_{1jt} + \alpha_2 Z_{2jt} + \alpha_3 Z_{3jt} + \underline{\mathbf{k}_{ijt}\boldsymbol{\vartheta}} + \underline{\mathbf{g}_{ijt}\boldsymbol{\lambda}} + \underline{\mathbf{f}_{ijt}\boldsymbol{\xi}} + \delta_t + \nu_{ijt} \quad (2)$$

Second stage

$$Log(wage_{ijt}) = \beta_0 + \beta_1 Log(\widehat{profits}_{jt}) + \boldsymbol{k_{ijt}}\underline{\boldsymbol{\vartheta}} + \underline{\mathbf{g}}_{\boldsymbol{ijt}}\underline{\boldsymbol{\lambda}} + \underline{\mathbf{f}}_{\boldsymbol{ijt}}\underline{\boldsymbol{\xi}} + \delta_t + \varepsilon_{ijt} \quad (3)$$

where $\widehat{profits}_{jt}$ in equation (3) represents the instrumented profit per hour in firm *j* in year *t* in equation (2).

We rely on existing studies to find appropriate instruments, i.e. variables which are correlated with firm profits-per-worker but not with workers' gross hourly wages.

Following a similar approach to Arai and Heyman (2009), Piton and Rycx (2019) and Pineda-Hernández *et al.* (2022), we adopt the lagged value of the endogenous variable as instrument. The first instrument Z_1 in equation (2) is thus the logarithm of the amount of profits per hour worked in firm *j* in year *t-1*. However, many studies have also emphasized the need to use external instruments in the rent-sharing estimation. We therefore add two external instruments.

As second instrument Z_2, we use a dummy variable for the type of firm's financial and economic control (firms which are less than 50% privately owned being the reference category). The underlying idea of this instrument is that private firms controlled mainly by private actors are more likely to follow a strict profit maximization approach. In contrast, those controlled primarily by public actors may face a trade-off between social goals and profit maximization. However, when it comes to the explanatory variable, any private firm controlled by public or private actors is compelled to offer wages around the equilibrium to limit job-to-job mobility and recruitment costs.

The last instrument Z_3 is inspired by the empirical strategy of Matano and Naticchioni (2017), Card *et al.* (2018) and Duan and Martins (2022). More precisely, we use the average log of profits per hour of firms in the same three-digit NACE sector and in the same year but in other Belgian regions. The rationality of this instrument is that firms belonging to the same sector of activity but in other regions are likely to experience the same demand and productivity shocks. However, it is unlikely that a firm considers the profits of geographically distant competitors when setting wages. In addition, the specific characteristics of each local labor market may impede external profits to shape the wages of an individual firm significantly.

Finally, we employ an OB decomposition technique to assess the influence of rent-sharing (and other variables) in the gender wage gap. The standard two-fold decomposition is expressed as follows:

$$\Delta_{Log(wage)} = \underbrace{(\bar{X}_1 - \bar{X}_0)\beta^T}_{explained\ wage\ gap} + \underbrace{(\beta_1 - \beta_0)^T \bar{X}_1}_{unexplained\ wage\ gap}$$

where $\bar{X}_0$ and $\bar{X}_1$ are vectors of mean observable characteristics for women and men, respectively, as presented in equation (1). The OB decomposition allows us to estimate the gender wage gap specifically associated with company profits, namely the price effect (i.e. the gap resulting from the gender difference in the elasticity of wages in relation to profits) and the quantity effect (i.e. the gap caused by differences in the average profits of companies employing men and women).

3. Data and descriptive statistics

This empirical study relies upon two large-scaled databases provided by Statistics Belgium (STATBEL). The first dataset is the Structure of Earnings Survey (SES). It contains information on firms operating in Belgium employing at least ten workers and ranked between sectors B to S (excluding O) of the 2008 Statistical Classification of Economic Activities in the European Community (Nomenclature statistique des activités économiques dans la Communauté européenne – NACE). The data are given by the human resource departments of the companies and contain a bunch of information on both the firms' characteristics (e.g. sector of activity, firm size, level of collective wage bargaining, type of financial and economic control and Belgian region where the firm is located) and the worker characteristics (e.g. gender, age, tenure, level of education, occupation and wages). Our dependent variable is the worker's real gross hourly wage. It is computed by dividing the individual's gross wages, including premiums for overtime, weekend or night work, bonuses and other premiums, by the total number of effective paid hours. The second dataset is called the Structure of Business Survey. It brings firm-level details on financial variables, such as the gross operating surplus. The latter, divided by the number of hours worked within the company, measures the firm profits. STATBEL matched both databases using the firms' social security numbers.

The initial cross-sectional sample contains 1,604,835 individual observations covering the years from 1999 to 2016. We apply a few filters to the initial sample. Firstly, only firms operating in the private sector[4] (i.e. sectors B to N of the NACE Rev. 2 classification) are kept (45,524 observations deleted). Secondly, we delete data of firms with no positive profits (269,935 observations deleted). We then filter out individual observations with zero earnings (3,330 observations deleted) and we remove the companies reporting information for less than 10 employees (44,716 observations deleted). Since our empirical strategy requires firm's information for at least two consecutive years, we remove from our sample the firms that are only observed one single year (605,192 observations deleted). Given that sampling percentages of firms in our dataset increase with the size of the latter, this leads to the over-representation of medium-sized and large firms in our sample[5]. We finally remove observations for which information on the two other instruments (i.e. a dummy variable indicating whether more than 50% of the firm is privately owned or not, and the average log of profits per hour of firms in the same three-digit NACE sector and in the same year but in other Belgian regions) are missing (7,996 observations deleted)[6]. Our final sample, covering the period 1999-2016, includes

[4] More precisely, our final sample covers the following sectors: (B) mining and quarrying, (C) manufacturing, (D) electricity, gas, steam and air conditioning supply, (E) water supply, sewerage, waste management and remediation, (F) construction, (G) wholesale and retail trade, repair of motor vehicles and motorcycles, (H) transportation and storage, (I) accommodation and food service activities, (J) information and communication, (K) financial and insurance activities, (L) real estate activities, (M) professional, scientific and technical activities, and (N) administrative and support service activities.

[5] The SES is a stratified sample. The stratification criteria refer to the region (NUTS-groups), the main economic activity (NACE-groups) and the size of the firm. The sample size in each stratum depends on the size of the firm. The sampling percentages of firms are equal to 10%, 50% and 100% when the number of workers is between 10 and 50, between 50 and 99, and above 100, respectively. Within a firm, the sampling percentages of employees also depend on the size of the firm. The sampling percentages of employees are equal to 100%, 50%, 25%, 14.3% and 10% when the number of workers is between 10 and 20, between 20 and 50, between 50 and 99, between 100 and 199, and between 200 and 299, respectively. Firms employing at least 300 workers are required to report information for an absolute number of employees, which ranges from 30 (for firms with 300-349 workers) to 200 (for firms with 12,000 workers or more). To guarantee that firms report information on a representative sample of their workers, they are asked to follow a specific procedure. First, they have to rank their employees in alphabetical order. Next, Statistics Belgium gives them a random letter (e.g. the letter O) from which they have to start when reporting information on their employees (following the alphabetical order of the workers' names in their list). If they reach the letter Z and still have to provide information on some of their employees, then they have to continue from the letter A in their list. Moreover, firms that employ different categories of workers, namely managers, blue- and/or white-collar workers, have to set up separate lists in alphabetical order for each of these categories and to report information on a number of workers in these categories that is proportional to their share in total firm employment. For example, a firm with 300 employees (namely 60 managers, 180 white-collar workers and 60 blue-collar workers) will have to report information on 30 workers (namely 6 managers, 18 white-collar workers and 6 blue-collar workers). For an extended discussion, see Demunter (2000).

[6] Appendix 1 shows how descriptive statistics evolve when applying our filters. We first present statistics for the initial sample. Then, we remove observations from companies not operating in the private sector, reporting no positive profits, reporting information for less than 10 employees; and observations from individuals with no positive earnings. This subsample is referred to as 'Filtered sample' in Appendix 1. Comparing this sample to the initial one reveals that firms which are kept generate more profits and are more concentrated in the manufacturing sector. Our instrumental variables technique requires applying other filters. Therefore, observations from companies that do not report information for a period of at least two years are removed, as well as those whose

628,142 individual observations in a panel of 5,376 firms. It is representative of employment in medium-sized and large firms in the Belgian private sector, with the exception of large parts of the financial sector (NACE K) and the electricity, gas and water supply industry (NACE D and E).

[Insert Table 1 here]

Table 1 presents descriptive statistics of worker, employment and firm characteristics. The variables are first displayed for all workers independently of their gender, then separately for men and women. The latter represent about 30% of the sample. For the sample of workers taken as a whole, we observe that the average gross hourly wage including bonuses stands at 20.8 EUR[7]. We observe that male workers earn more than their female counterparts (21.9 *vs.* 18.5 EUR). The average profit per hour worked within the firm reaches 29.3 EUR, and men are employed in companies which are more profitable (30.1 *vs.* 27.5 EUR).

We observe that 27.5% of workers are tertiary educated. Among this category, almost 42% have a STEM (Science, Technology Engineering and Mathematics) degree while 35% have a degree in another field. Compared to men, women are more likely to be tertiary educated (29.0% *vs.* 26.9%) but are less likely to obtain degrees in STEM fields (20.8% *vs.* 51.9%). The tenure within a firm averages 10.3 years (10.9 *vs.* 8.7 years for men and women, respectively). Regarding the employment characteristics, 10.6% of individuals work part-time, a characteristic which is way higher for women than for men (25% *vs.* 4.3%). On the contrary, women are less likely to work overtime than men (1.9% *vs.* 6.2%). Overall, 4.9% of workers are working overtime. Almost 91% of people in our sample have a permanent contract (91.6% *vs.* 88.4% for men and women, respectively). Managerial positions[8] represent 26.6% of our sample, a proportion higher for men than for women (28.2% *vs.* 22.9%). Among the characteristics of the firm, manufacturing represents the main employing sector (44.5%), covering more than half of men in our sample and a bit less than one third of women. The two

information on the two other instruments are missing. This final sample is referred to as 'Final sample'. Given the stratified nature of our sample (see footnote 5), as expected, our selected firms employ a larger number of workers and present the usual features associated to their bigger size such as higher wages and profits, a stronger concentration in the manufacturing sector and a higher incidence of collective agreements at the firm level.

[7] All variables measured in monetary terms have been deflated to constant prices of 2013 by the consumer index provided by Statistics Belgium.

[8] Managerial positions include the following categories: Managers, Professionals and Technicians and associate professionals.

most represented sectors are then sectors G (wholesale and retail trade, repair of motor vehicles and motorcycles activities) and N (administrative and support service activities), in which women are substantially more represented than men (22.4% *vs.* 11.7% in sector G and 22.8% *vs.* 7.8% in sector N). Other gender differences are also notably found in the accommodation and food service activities (3.1% *vs.* 1.2% for women and men, respectively) and in the construction sector (8.4% of men and 1.6% of women). 36.5% of firms are covered by a firm-level collective agreement, with 38.5% of men and 32.0% of women being covered by such an agreement.

4. Benchmark specification

We first estimate our benchmark specification (equation (1)) for all workers taken as a whole, using a pooled OLS estimator with clustered standard errors at the firm level. This approach allows us to focus on variation within and between firms and to control for heteroscedasticity and serial correlation of the error term. Controlling solely for year fixed effects without any other control variable, we find a positive and significant influence of profits per hour on the gross hourly wage. The results reported in column (1) of Table 2 show that any increase of 100% of hourly profits leads to a significant rise of 8.7% in the gross hourly wage. When estimating the forementioned specification for men and women separately, we find that the wage-profit elasticities reach 8.5% for male workers and 8.1% for female workers, a difference which is found to be non-significant. The *p*-value in our test for equality of coefficients between both genders is equal to 0.58.

However, these estimates do not consider the large heterogeneity in the worker, employment and firm characteristics. Adding control variables for these features, the wage-profit elasticity decreases to an estimation of 2.1% for all workers taken as a whole, as reported in column (2) of Table 2. The elasticities are 2.2% for men and 1.9% for women. Once again, they do not significantly differ (*p*-value of 0.15).

We complete our benchmark specification by using instrumental variables to tackle the endogeneity of profits. To address this issue, we apply a 2SLS estimation technique including three specific instruments, as described in the section devoted to the methodology.

The results based on these instrumental variables are displayed in column (3) of Table 2. The overall instrumented wage profit-elasticity stands at 2.8%, controlling for worker, employment and firm characteristics. The estimates are equal to 2.9% and 2.4% for men and women, respectively, and the difference between them appears to be non-significant.

To discuss the soundness of our 2SLS approach, we performed an array of diagnostic tests. The results of these tests, as well as the first-stage estimates, are reported in Appendix 2. For the three samples, the Cragg Donald Wald *F* statistic is higher than 10 and therefore suggests that our instruments are not weak[9]. Concerning the quality of our instruments, the *p*-value associated with the Hansen's *J* overidentication test is always greater than 0.10. We therefore do not reject the null hypothesis that our instruments are valid. The Durbin-Wu-Hausman endogeneity test[10] displays a *p*-value associated with the Chi-squared statistic equal to 0.00 for all three samples. The null hypothesis of no endogeneity is rejected, suggesting thus that our main explanatory variable (i.e. profits per hour worked) is endogenous. Consequently, 2SLS estimates should be preferred when estimating rent-sharing. As expected, the instruments introduced display a positive sign in the first stage of the regression, confirming that they exert a positive influence on the current value of profits. The estimated coefficients for the one-year lagged profit values are between 0.7 and 0.8, and are statistically significant at the 1% threshold, confirming the persistence of profits over time within firms. The coefficients of the second instrument suggest that when a firm is at least 50% financially and economically controlled by the private sector, profits increase by between 1% and 10%. However, this instrument is not significant in our benchmark specification[11]. The last instrument (i.e. the profits per hour of firms in the same three-digit NACE sector and in the same year but in other Belgian regions) display coefficients which fall between 0.06 and 0.07 and are significant at the 1% level. Accordingly, our results suggest that firms' profitability is positively (albeit moderately) affected by competitors in other regions, due to shared economic conditions faced across the sector.

[9] As suggested by van Ours and Stoeldraijer (2011), we rely on the standard "rule of thumb" that weak identification is problematic for *F* statistics smaller than 10.

[10] The Durbin-Wu-Hausman test is based on the difference between two Sargan-Hansen statistics: one for the equation where profits are treated as endogenous and one for the equation where profits are treated as exogenous. If the null hypothesis of this test cannot be rejected, then instrumentation is actually not necessary, implying that OLS estimates should be preferred to those obtained with the 2SLS estimator.

[11] This second instrument becomes significant in some of the following estimations, analyzing the role of moderators on the wage-profit elasticities. We indeed follow the same instrumentation strategy throughout the article.

As expected, we find that the wage-profit elasticity is greater when endogeneity is accounted for. This is in line with other studies (see e.g. Du Caju *et al.*, 2011; Matano and Naticchioni, 2017). As regards the magnitude of our IV estimates, they appear to be somewhat lower than other calculations previously found for other countries. For instance, Card *et al.* (2014), controlling for the endogeneity of value added per worker, find wage-profit elasticities of around 4% to 5% in Italy over the period from 1995 to 2001. Duan and Martins (2022), studying the case of China for the 2000-2007 timespan and relying on instrumental variables, find elasticities which are included between 2% and 5.4%, controlling for a large set of covariates.

The Lester's (1952) range of pay[12] based on our wage-profit elasticity is about 35.5%. This statistic estimates the fraction of the overall wage inequality which is due to the variability in profits per hour. In other words, a worker who would leave a low-profit company (two standard deviations below the mean) for a high-profit firm (two standard deviations above the mean) could expect an increase of 35.5% in the level of pay. These ranges amount to about 34% and 35% for men and women, respectively.

[Insert Table 2 here]

Overall, our estimates thus support the hypothesis that there is no significant difference in the wage-profit elasticities by gender[13]. Put differently, our results suggest that, controlling for a broad set of covariates and the endogeneity of profits, men and women receive the same proportion of the company rents. However, the actual gain from firm profits may be different for the two groups of workers if, on average, women and men are employed in firms making different levels of profits, as supported by our descriptive statistics. The OB decomposition, whose results are presented in Table 3, sheds light on this potential composition effect. The overall gender wage gap (i.e. the difference between the logarithmic wages of men and women) stands at 0.156. Put differently, women earn, on average, 84.4% of the mean male wage. Regarding the influence of profits in this gender wage gap, the link occurs through the

[12] This statistic is obtained by multiplying the elasticity by four times the standard deviation of profits (93.1 for all workers, 89.0 for men and 101.7 for women) divided by the mean of profits (29.3 for all workers, 30.1 for men and 27.5 for women) (Lester, 1952).

[13] Since a large part of women in our sample work part-time, we have examined how the rent-sharing estimations evolve when comparing male and female workers who only work full-time (i.e. workers who work at least 30 hours on a weekly basis). Results, presented in Appendix 3, which include the same covariates and use the same instruments to control for the endogeneity of profits, do not alter the conclusion of our benchmark results: the wage-profit elasticity still stands at 2.9% for men and it barely goes up for women (from 2.4% to 2.7%). The difference between men and women remains non-significant.

composition effect. The results suggest that 5.1% of this gap can be explained by the fact that women are, on average, employed in companies with lower profits per hour. The price effect has no significant influence on the gap, as supported by the 2SLS results.

[Insert Table 3 here]

5. Moderating variables

Our benchmark results support the hypothesis of no significant difference in rent-sharing for men and women. However, the variability in the individual's human capital can influence the ability with which they can extract part of the firm surplus. Firstly, the influence of education is analyzed. There are indeed several studies which highlight that a higher level of education increases the worker's bargaining power (Arai and Heyman, 2001; Guertzgen, 2009; Martins, 2009).

Consistently with such findings, our estimations presented in Table 4 put forward a significant correlation between the level of education and the extent of rent-sharing. The significantly higher wage-profit elasticity for tertiary-educated graduates than for their secondary-educated counterparts holds for all workers taken as a whole (3.2% *vs.* 2.4%), as well as for men (3.4 % *vs.* 2.6%) and women (2.8% *vs.* 2.0%)[14]. For each level of education, the elasticity is higher for men. However, the tests for the equality of coefficients show that there is no significant difference between male and female workers, when comparing workers with the same level of education. Put differently, the level of education significantly enhances the ability to negotiate a share of the firm rents, but it does not benefit one gender more than the other.

This standard approach of education can be brought a step further by analyzing the influence of the field of study on the remuneration coming from firm profits. There is a growing literature which shows heterogeneity in the returns of human capital investments (Altonji *et al.*, 2012). For instance, Arcidiacono (2004) finds different earnings premiums across majors in the US.

[14] For all the moderators analyzed in this section (i.e. level of education, field of study, tenure, occupation and type of wage agreement), we use the same instruments as those specified in the benchmark estimations. The specification tests suggest that, for all categories of our moderating variables: i) the instruments are not weak; ii) are valid; and iii) that the profits per hour worked are endogenous. Similarly to our benchmark estimation, the coefficients of the instruments in the first stage are significant overall and show the expected positive sign. The first-stage estimates and the 2SLS tests for all moderating variables are available in Appendix 4.

Individuals who graduated in natural sciences appear to earn more compared to those who studied business, social science or education-related majors at college. Such results are supported by Webber (2014) who notes that STEM (Science, Technology Engineering and Mathematics) graduates earn more than their counterparts who chose other majors. Studying the case of France, Beffy *et al.* (2012) also finds larger returns for workers with a degree in science. The same trend holds for Norway, with the highest-paid workers found among individuals with a degree in medicine, engineering, science, business, law and technology (Kirkeboen *et al.*, 2016). In addition, women are underrepresented in STEM fields compared to men (Delaney and Devereux, 2025) and the relationship between the field of study and earnings does not appear to be gender-neutral (Altonji, 1993; Finnie and Frenette, 2003; Black *et al.*, 2008). For example, Card and Payne (2021) estimate that the major explains approximatively 20% of the gender wage gap in Canada. Such disparities could also reflect in the rent-sharing process.

To test empirically whether the STEM diplomas lead to a higher rent-sharing, we split the sample of tertiary-educated individuals between those who graduated in STEM and those who earned a degree in another field[15]. While the coefficient is slightly higher for the STEM graduates (3.4% *vs.* 2.9%), there is no significant difference between both groups. Adding gender to the analysis, this result still holds. The elasticities of men (women) do not differ whether they graduated either in STEM or in non-STEM fields. Moreover, within both subsamples of fields of study, there appears to be no significant different wage-profit elasticities according to the gender.

Put together, our results so far confirm that a higher level of education significantly improves the remuneration coming from firm profits. However, within tertiary-educated workers, the field of study does not seem to enhance the individual's ability to negotiate over firm surplus.

Furthermore, other components of the workers' human capital make them more productive and therefore increase their bargaining power. Gagliardi *et al.* (2023) find that tenure has a positive effect on productivity overall, as workers gain firm-specific skills. The role of tenure in shaping the relationship between wages and firm profits has been examined by Kline *et al.* (2019), who analyze how workers' wages respond when firms are granted patents. They estimate that the

[15] Data regarding the field of study is unavailable for slightly more than 40,000 observations.

patent-induced surplus yields approximately a 30% increase in the remuneration. Moreover, men, high-earning workers and those with a longer tenure within the firm benefit the most from this pay rise, whereas workers who joined the firm after it was granted the patent enjoy almost none of the surplus induced. Consistently with the results found by Jäger and Heining (2022), the authors mention that incumbent workers are less easily replaceable than new hires, as they had the opportunity to gain firm-specific human capital. They capture a part of these replacement costs in the form of higher wages.

Comparing individuals with 10 or more years of tenure with their counterparts with a lower tenure confirms this trend. While workers with 10 or more years of tenure see their wages increase by 3.1% after their employer doubles its profits, their colleagues who stepped into the company less than 10 years before can only expect a 2.3% pay rise, a difference which is found to be significant. When subdividing the sample by gender, results are somewhat different. Men with a longer tenure benefit more from rent-sharing than their male colleagues with a shorter tenure (3.2% *vs.* 2.4%, respectively), while women do not see the remuneration coming from firm profits increase with tenure[16].

These results strengthen the place of firm-specific human capital in making the company more productive, which can translate into premiums for the employees. The level of skills and productivity is also likely to vary across the different occupations within the firm. Bell and Van Reenen (2012) show that executives receive more cash bonuses linked to the firm success compared to other workers. They provide two possible explanations for this result. Firstly, the performance of the company might be more related to these executives' actions than those of others. Secondly, the executives might exert their bargaining power to extract more rents. In line with the intuition that workers with firm specific human capital are more difficult to replace, Bloesch *et al.* (2022) find that firms have incentives to share parts of their profits with workers in strategic positions, displaying a high level of within-firm task differentiation. Managers appear to represent the group of employees with the highest power and can thereby expect to benefit the most from rent-sharing. Edmond and Mongey (2019) find that low-skilled occupations tend to become more alike, which reduces the possibility for workers within these occupations to extract rents. On the contrary, high-skilled occupations tend to become

[16] However, these results should be interpreted with care since the tests of equality of coefficients do not reveal any different elasticity between men and women with the same level of tenure.

increasingly different from one another. Workers who display a comparative advantage in some skills can receive higher rents.

It might then be interesting to estimate the extent of rent-sharing for workers in managing positions and for the subordinates. The estimated wage-profit elasticities in Table 4 are significantly different when comparing individuals in managing positions to those who are not managers (3.5% *vs.* 2.3%, respectively). The influence of the occupation holds for each gender: male (female) managers receive more rents than male (female) workers who are not in a managing position. This result does not vary according to the gender: female managers (non-managers) do not receive less rents than male managers (non-managers).

Our findings – based on various indicators representing the worker's human capital and occupation – suggest that individual bargaining power plays a crucial role in shaping rent-sharing outcomes, particularly for tertiary-educated employees, long-tenured staff, and those in managerial positions. Nevertheless, collective bargaining power – measured here by the role of unions – in the rent-sharing process needs to be further investigated, as labor market institutions play a key role in the determination of wages, especially in Belgium. It is worth reminding that the negotiation over wages occurs at three levels in Belgium: the national, sectoral, and firm levels. Firm-specific wage agreements are designed to complement sectoral agreements and must offer conditions that are at least as favorable. Rusinek and Rycx (2013) find that the remuneration coming from firm profits in Belgium is higher in decentralized industries than in centralized ones, i.e higher in industries where agreements are renegotiated at the firm level rather than in sectors with little or no further renegotiation of industry agreements at the company level.

Our results are in line with those previous findings. The wage-profit elasticity is significantly higher for individuals employed in companies in which there is a specific wage agreement than for those solely covered by an industry agreement (3.5% *vs.* 2.5%, respectively). This suggests that unions succeed in improving the part of profits which is distributed to workers. This said, results differ by gender. Men employed in a company where wages have been renegotiated receive a higher share of firm profits than those in companies with no further renegotiation (3.6% *vs.* 2.6%, respectively). The estimations do not lead to the same conclusion for women: being covered by a firm-level agreement does not statistically yield to an increased elasticity compared to their counterparts only covered by an industry agreement. This pattern is

confirmed when testing the difference of coefficients at a given bargaining level. Among workers covered by a firm-level agreement, the wage-profit elasticity is statistically greater for men than for women (3.6% *vs.* 2.6%, respectively). On the contrary, the difference between genders is not significant within the sample of workers solely covered by an industry agreement.

[Insert Table 4 here]

As expected, the aforementioned price effects (i.e. differences in the wage-profit elasticities) are never statistically significant in OB decompositions, except in the case of firm-level collective agreements (see Appendix 5). For these, the unequal distribution of profits accounts for 15.5% of the gender wage gap. However, beyond the price effect, rent-sharing may also contribute to the gender pay gap through the quantity effect (i.e. differences in the average profits of firms employing men and women). Results, presented in Appendix 5, indicate that the explained contribution of profits to the gender wage gap ranges between 0.9% and 6.4%. Compared to the contribution found in our benchmark specification (5.1%), the percentages are higher for the samples of workers who have a secondary education, less than 10 years of tenure, non-managerial positions and covered only by a sectoral collective agreement. Conversely, they are lower for workers with tertiary education (particularly in non-STEM fields), more than 10 years of tenure, managerial positions and covered by a company agreement. Overall, our findings therefore suggest that the gender pay gap is not driven by the unequal distribution of profits within companies (except in those covered by an in-house collective agreement), but rather by the segregation of women, particularly those with limited bargaining power, into less profitable companies.

6. Conclusion

The contribution of rent-sharing to earnings differentials between different groups of workers has garnered a considerable interest in the literature (see e.g. Matano and Naticchioni, 2017; Card *et al.*, 2018; Duan and Martins, 2022). However, the influence of profits on the gender wage gap requires closer scrutiny, as existing studies are relatively scarce, somewhat dated, and lack consensus. Most have approached this issue from a single-gender perspective, overlooking important variables that reflect differences in individual and collective bargaining power. Therefore, we examine whether the relationship between rent-sharing and gender varies according to factors related to human capital (i.e. education level, field of study, and seniority),

occupational status (i.e. whether the individual holds a managerial position or not), and union coverage (i.e. the type of wage agreement). This objective is achieved thanks to a rich matched employer-employee database for Belgium covering the period 1999-2016 and a comprehensive econometric approach (i.e. 2SLS regressions and OB decompositions).

Overall, our results, controlling for an extensive array of covariates and endogeneity issues, suggest that firms do not share their profits differently with male and female workers. More precisely, the wage-profit elasticity is estimated at 2.8% and is not statistically different for women and men. These non-differing elasticities therefore imply a non-significant price effect in the gender wage gap, which is estimated in our analysis at 15.6%. These results are consistent with those of Rycx and Tojerow (2004), who also find a non-significant price effect in Belgium for the year 1995. Our findings, however, differ from those of Nekby (2003) and Matano and Naticchioni (2013), who report that men receive a larger share of profits compared to women.

An important insight emerges when moderating variables reflecting individual bargaining power (i.e. education level, field of study, tenure, and occupation) or collective bargaining power (i.e. type of wage agreement) are introduced into the analysis. As highlighted in the existing literature (Bell and Van Reenen, 2012; Martins, 2009; Kline *et al.*, 2019), it appears that a higher level of education, longer tenure, and being in a managerial position increase the wage-profit elasticity. For these variables, no gender-specific effect is observed. In other words, higher human capital – measured here by education level or tenure – and holding a managerial position increase rent-sharing for both men and women. Regarding the type of wage agreement, firm-level wage renegotiation tends to increase the share of profits distributed to workers overall, in line with the findings of Rusinek and Rycx (2013). However, gender-disaggregated results indicate that only men benefit from such renegotiation, while women do not experience a corresponding rise in elasticity. This aligns with the findings of Hennig and Stadler (2021), who show that enterprise-level agreements are associated with greater within-firm disparities in pay premiums between men and women.

Our findings, which indicate no significant price effect overall, can be explained by the role of institutions and legislation in the Belgian labor market. Indeed, around 98% of the employed population is covered by a collective agreement, and trade unions, to which more than 50% of employees are affiliated, have a relatively strong bargaining power in Belgium (OECD, 2019). Furthermore, this bargaining process tends to limit the flexibility in wage setting. Every two

years, trade unions and employers' associations negotiate an interprofessional agreement covering, in particular, the national minimum wage (which can then be renegotiated upwards within sectors) and the wage norm (i.e. the maximum wage increase that companies can grant their workers for the next two years). In addition, wages are automatically indexed, meaning that they follow price changes (as measured by the so-called 'health index') (Kampelmann and Rycx, 2013). All of this leads to significant wage compression and, in particular, is likely to promote wage equality between men and women doing the same job (and having the same characteristics, particularly in terms of human capital).

Furthermore, both supranational and national legislation require equal treatment of men and women in the Belgian labor market. At the European level, Directive 2023/970 of the European Parliament and of the Council of the European Union strengthens the principle of equal pay for equal work or work of equal value between men and women through pay transparency and enforcement mechanisms. At the national level, the law of May 10, 2007, aimed at combating discrimination between women and men, has been strengthened by the law of November 15, 2022, which introduces additional grounds for discrimination beyond sex. These include, among others, pregnancy, medically assisted reproduction, childbirth, breastfeeding, maternity, and family responsibilities. This increases protection against sources of discrimination that women may face in their professional careers, and in turn also contributes to explain our results (i.e. the absence of a significant price effect).

However, rent-sharing seems to fuel the gender wage gap, albeit to a fairly modest extent (at around 5% of the gender wage gap for our benchmark specification) through the channel of segregation (i.e. women are somewhat more concentrated in less profitable firms). This contribution of profits to the gender wage gap is not negligible compared to other factors examined. For example, Blau and Kahn (2017) find that human capital accounts for about 8% of the gap. Several factors help explain the concentration of female employees in lower-paying firms. Research shows that women tend to have lower mobility in the labor market (Manning, 2003) and may also face discriminatory practices from employers, such as taste-based, statistical or monopsonistic (Barth and Dale-Olsen, 2009; Morchio and Moser, 2024). In addition, some women may work in less profitable firms located closer to home, either by choice or due to constraints. It is indeed well established that women are significantly more involved in domestic work, and that this influences their pay (Solaz and Wolff, 2015; Matteazzi and Scherer, 2021). Compared to the benchmark, the composition effect is reduced for workers

with tertiary education, a non-STEM degree, and with at least 10 years of tenure. In contrast, it is amplified for workers with secondary education, with less than 10 years of tenure, who are not in managerial positions, and are covered by a sectoral wage agreement. Understanding this profit-based segregation requires in-depth analysis and thus leaves room for further research on the role of rent-sharing in the gender wage gap.

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Table 1. Descriptive statistics by gender – means and percentages, 1999-2016

	Whole sample (1)	Men (69.4%) (2)	Women (30.6%) (3)
Real gross hourly wage (in EUR)[a]	20.8	21.9	18.5
Profits per hour worked (in EUR)[a]	29.3	30.1	27.5
Worker characteristics			
Education (%):			
At most lower secondary	31.0	31.3	30.3
Upper secondary	41.5	41.8	40.7
Tertiary	27.5	26.9	29.0
Field of study (%) – Tertiary-educated workers			
STEM	41.8	51.9	20.8
Non-STEM	35.0	25.2	55.5
Unknown	23.2	22.9	23.7
Age (%)			
15-19	1.1	0.9	1.5
20-24	7.7	7.3	8.5
25-29	12.4	11.9	13.4
30-34	13.8	13.5	14.6
35-39	14.7	14.5	15.2
40-44	15.2	15.3	15.1
45-49	14.5	14.8	13.8
50-54	12.2	12.9	10.7
55-59	6.8	7.2	5.9
60 and older	1.6	1.7	1.4
Tenure	10.3	10.9	8.7
Household (%):			
Without children living at home	30.0	29.6	31.0
With children living at home	65.4	65.6	65.1
Other households[b]	4.6	4.8	3.9
Employment characteristics			
Part-time (%)[c]	10.6	4.3	25.0
Overtime (%)[d]	4.9	6.2	1.9
Permanent contract (%)	90.6	91.6	88.4
Occupational categories - ISCO1 (%):			
Managerial positions	*26.6*	*28.2*	*22.9*
Managers	4.4	4.9	3.0
Professionals	11.8	12.4	10.6
Technicians and associate professionals	10.4	10.9	9.3
Non-managerial positions	*73.4*	*71.8*	*77.1*
Clerical support	17.3	12.6	27.8
Service and sales workers	9.6	6.5	16.7
Craft and related trades workers	16.1	21.0	5.1
Plant and machine operators and assemblers	18.6	22.9	9.1
Elementary Occupations	11.8	8.8	18.4
Firm characteristics			
Sector of activity - NACE1 (%):			
B - Mining and Quarrying	0.3	0.4	0.1
C - Manufacturing	44.5	50.5	30.7
D - Electricity, gas, steam and air conditioning supply	1.9	2.2	1.4
E - Water supply, sewerage, waste management and remediation activities	1.1	1.3	0.8
F - Construction	6.3	8.4	1.6
G - Wholesale and retail trade, repair of motor vehicles and motorcycles	15.0	11.7	22.4
H - Transportation and storage	8.0	8.8	6.3
I - Accommodation and food service activities	1.8	1.2	3.1
J - Information and communication	4.5	4.3	4.8
K - Financial and insurance activities	1.0	0.7	1.6
L - Real Estate activities	0.1	0.1	0.1
M - Professional, scientific and technical activities	3.1	2.6	4.3
N - Administrative and support service activities	12.4	7.8	22.8
Size of the firm (FTE number of employees)	670.7	747.5	496.6

Firm-level collective wage agreement (Yes) (%)	36.5	38.5	32.0
Region where the firm is located (%):			
Brussels	13.8	12.8	15.9
Flanders	63.4	63.6	63.1
Wallonia	22.8	23.6	21.0
Number of observations	628,142	440,142	188,000

Notes: Sample covers workers aged 15-75. [a] At 2013 constant prices. [b] 'Other households' refer to brothers/sisters living together, friends living together, students or workers' homes, etc. [c] A worker is recognized as a part-time employee if he/she works less than 30 hours per week. [d] Overtime is when an employee works more than his/her contractual working hours. Source: STATBEL, 1999-2016.

Table 2 – Benchmark: Rent-sharing and workers' gender

	Log (real gross hourly wage)		
	(1)	**(2)**	**(3)**
	OLS	**OLS**	**2SLS[f]**
Whole sample			
Log (profits per hour worked)	0.087***	0.021***	0.028***
	(0.006)	(0.002)	(0.003)
Observations	628,142	628,142	628,142
Adjusted R-squared	0.13	0.67	0.54
Panel A: Men			
Log (profits per hour worked) [1]	0.085***	0.022***	0.029***
	(0.007)	(0.002)	(0.004)
Observations	440,142	440,142	440,142
Adjusted R-squared	0.12	0.66	0.54
Panel B: Women			
Log (profits per hour worked) [2]	0.081***	0.019***	0.024***
	(0.006)	(0.003)	(0.004)
Observations	188,000	188,000	188,000
Adjusted R-squared	0.16	0.66	0.50
Control variables			
Year fixed effects[a]	Yes	Yes	Yes
Worker characteristics[b]	No	Yes	Yes
Employment characteristics[c]	No	Yes	Yes
Firm characteristics[d]	No	Yes	Yes
Test for equality of coefficients (p-value)[e]			
[1] = [2]	0.58	0.15	0.17

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] 17 year dummies. [b] Age, tenure, squared tenure, education and type of household. [c] Type of contract, part-time work, overtime work and occupations (ISCO2). [d] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. [e] The null hypothesis of the test specifies that the estimates are not statistically different from each other. [f] First-stage results and 2SLS tests (weak instruments, overidentification and endogeneity) are presented in Appendix 2. Source: STATBEL, 1999-2016.

Table 3 - Oaxaca-Blinder decomposition between male and female workers: How much does rent-sharing matter?

	2SLS			
Total men-women wage gap	0.156***			
	(0.010)			
Explained wage gap	0.072***			
	(0.009)			
Unexplained wage gap	0.084***			
	(0.005)			
Decomposition	Explained wage gap	% of the total wage gap	Unexplained wage gap	% of the total wage gap
Log (profits per hour worked)	*0.008*** (0.002)*	*5.1%*	*0.011 (0.008)*	*6.7%*
Worker characteristics[a]	0.017*** (0.003)	10.9%	0.002 (0.004)	1.2%
Employment characteristics[b]	0.030*** (0.006)	19.2 %	0.013 (0.009)	7.9%
Firm characteristics[c]	0.016*** (0.004)	10.2%	0.025** (0.013)	15.1%
Year- fixed effects[d]	0.001 (0.001)	0.6%	-0.003*** (0.001)	1.8%
Constant term			0.035** (0.017)	21.2%

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] Age, tenure, squared tenure, education and type of household. [b] Type of contract, part-time work, overtime work and occupations (ISCO2). [c] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. [d] 17 year dummies. Source: STATBEL, 1999-2016.

Table 4 – Level of education, Field of study, Tenure: Rent-sharing and workers' gender (2SLS[f] estimations)

	Log (real gross hourly wage)					
	Level of education		**Field of study**		**Tenure**	
	Secondary educated [I]	**Tertiary educated** [II]	**Non-STEM** [I]	**STEM** [II]	**Less than 10 years** [I]	**10 years or more** [II]
Whole sample						
Log (profits per hour worked) [1]	0.024***	0.032***	0.029***	0.034***	0.023***	0.031***
	(0.004)	(0.003)	(0.004)	(0.004)	(0.003)	(0.004)
Observations	452,519	175,623	64,808	70,239	372,951	255,191
Adjusted R-squared	0.32	0.62	0.64	0.59	0.51	0.52
Panel A: Men						
Log (profits per hour worked) [2]	0.026***	0.034***	0.031***	0.035***	0.024***	0.032***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)	(0.005)
Observations	322,588	117,554	31,263	59,247	251,074	189,068
Adjusted R-squared	0.59	0.61	0.63	0.59	0.52	0.52
Panel B: Women						
Log (profits per hour worked) [3]	0.020***	0.028***	0.026***	0.029***	0.022***	0.027***
	(0.004)	(0.003)	(0.004)	(0.006)	(0.004)	(0.004)
Observations	129,931	58,069	33,545	10,992	121,877	66,123
Adjusted R-squared	0.32	0.58	0.58	0.53	0.49	0.47
Control variables						
Year fixed effects[a]	Yes	Yes	Yes	Yes	Yes	Yes
Worker characteristics[b]	Yes	Yes	Yes	Yes	Yes	Yes
Employment characteristics[c]	Yes	Yes	Yes	Yes	Yes	Yes
Firm characteristics[d]	Yes	Yes	Yes	Yes	Yes	Yes
Test for equality of coefficients (p-value)[e]						
[1;I] = [1;II]	0.06		0.19		0.04	
[2;I] = [2;II]	0.09		0.30		0.04	
[3;I] = [3;II]	0.06		0.66		0.19	
[2;I] = [3;I]	0.14		0.26		0.48	
[2;II] = [3;II]		0.13		0.31		0.18

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] 17 year dummies. [b] Age, tenure, squared tenure, education and type of household. [c] Type of contract, part-time work, overtime work and occupations (ISCO2). [d] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. [e] The null hypothesis of the test specifies that the estimates are not statistically different from each other. [f] First-stage results and 2SLS tests (weak instruments, overidentification and endogeneity) are available in Appendix 4. Source: STATBEL, 1999-2016.

Table 4 (continued) – Occupation, Wage agreement: Rent-sharing and workers' gender (2SLS[f] estimations)

	Log (real gross hourly wage)			
	Occupation		Wage agreement	
	Non-managers [I]	Managers [II]	Sector [I]	Firm [II]
Whole sample				
Log (profits per hour worked) [1]	0.023***	0.035***	0.025***	0.035***
	(0.004)	(0.003)	(0.004)	(0.005)
Observations	460,362	167,780	416,827	211,315
Adjusted R-squared	0.29	0.59	0.54	0.54
Panel A: Men				
Log (profits per hour worked) [2]	0.024***	0.036***	0.026***	0.036***
	(0.004)	(0.004)	(0.004)	(0.006)
Observations	316,501	123,641	286,754	153,388
Adjusted R-squared	0.28	0.59	0.55	0.61
Panel B: Women				
Log (profits per hour worked) [3]	0.020***	0.030***	0.024***	0.026***
	(0.004)	(0.004)	(0.004)	(0.004)
Observations	143,861	44,139	130,073	57,927
Adjusted R-squared	0.30	0.56	0.50	0.51
Control variables				
Year fixed effects[a]	Yes	Yes	Yes	Yes
Worker characteristics[b]	Yes	Yes	Yes	Yes
Employment characteristics[c]	Yes	Yes	Yes	Yes
Firm characteristics[d]	Yes	Yes	Yes	Yes
Test for equality of coefficients (p-value)[e]				
[1;I] = [1;II]		0.01		0.08
[2;I] = [2;II]		0.01		0.09
[3;I] = [3;II]		0.03		0.65
[2;I] = [3;I]	0.20		0.57	
[2;II] = [3;II]		0.12		0.05

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] 17 year dummies. [b] Age, tenure, squared tenure, education and type of household. [c] Type of contract, part-time work, overtime work and occupations (ISCO2). [d] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. [e] The null hypothesis of the test specifies that the estimates are not statistically different from each other. [f] First-stage results and 2SLS tests (weak instruments, overidentification and endogeneity) are available in Appendix 4. Source: STATBEL, 1999-2016.

Appendix 1. Descriptive statistics in different sub-samples – means and percentages, 1999-2016

	Initial sample			Filtered sample[e]			Final sample[f]		
	Whole sample	**Men (67.2%)**	**Women (32.8%)**	**Whole sample**	**Men (69.7%)**	**Women (30.3%)**	**Whole sample**	**Men (69.4%)**	**Women (30.6%)**
Real gross hourly wage (in EUR)[a]	20.0	21.0	17.8	20.1	21.0	17.9	20.8	21.9	18.5
Profits per hour worked (in EUR)[a]	22.8	23.2	22.0	28.3	28.5	28.1	29.3	30.1	27.5
Worker characteristics									
Education (%):									
At most lower secondary	31.5	32.7	28.9	31.8	32.7	29.8	31.0	31.3	30.3
Upper secondary	41.9	41.7	42.4	42.3	42.4	42.0	41.5	41.8	40.7
Tertiary	26.6	25.6	28.7	25.9	24.9	28.2	27.5	26.9	29.0
Field of study (%) – Tertiary-educated workers									
STEM	38.3	48.5	19.6	39.5	49.6	19.0	41.8	51.9	20.8
Non-STEM	38.0	27.7	56.9	36.8	26.8	57.2	35.0	25.2	55.5
Unknown	23.7	23.8	23.5	23.7	23.6	23.8	23.2	22.9	23.7
Age (%)									
15-19	1.2	1.0	1.5	1.2	1.1	1.6	1.1	0.9	1.5
20-24	8.1	7.6	9.2	8.2	7.8	9.1	7.7	7.3	8.5
25-29	13.3	12.7	14.6	13.1	12.6	14.2	12.4	11.9	13.4
30-34	14.5	14.1	15.5	14.4	14.0	15.3	13.8	13.5	14.6
35-39	14.9	14.7	15.3	14.9	14.7	15.4	14.7	14.5	15.2
40-44	14.9	15.0	14.6	15.0	15.0	14.9	15.2	15.3	15.1
45-49	13.8	14.2	13.0	13.9	14.2	13.1	14.5	14.8	13.8
50-54	11.3	12.1	9.7	11.4	12.1	9.8	12.2	12.9	10.7
55-59	6.3	6.8	5.2	6.3	6.7	5.2	6.8	7.2	5.9
60 and older	1.7	1.8	1.4	1.7	1.8	1.4	1.6	1.7	1.4
Tenure	9.2	9.8	7.9	9.3	9.8	8.0	10.3	10.9	8.7
Household (%):									
Without children living at home	30.4	30.1	30.9	30.0	29.6	30.9	30.0	29.6	31.0
With children living at home	65.3	65.2	65.5	65.5	65.5	65.4	65.4	65.6	65.1
Other households[b]	4.3	4.7	3.6	4.5	4.9	3.7	4.6	4.8	3.9
Employment characteristics									
Part-time (%)[c]	11.6	4.5	26.1	10.5	4.3	25.0	10.6	4.3	25.0
Overtime (%)[d]	4.4	5.8	1.7	4.7	6.0	1.7	4.9	6.2	1.9
Permanent contract (%)	91.9	92.9	89.9	91.7	92.7	89.3	90.6	91.6	88.4
Occupational categories - ISCO1 (%):									
Managerial positions	*25.0*	*26.5*	*22.1*	*24.3*	*25.8*	*21.1*	*26.6*	*28.2*	*22.9*
Managers	4.0	4.7	2.6	4.0	4.6	2.8	4.4	4.9	3.0
Professionals	11.5	12.0	10.5	11.0	11.5	9.8	11.8	12.4	10.6
Technicians and associate professionals	9.5	9.8	9.0	9.3	9.7	8.5	10.4	10.9	9.3

Non-managerial positions	*75.0*	*73.5*	*77.9*	*75.7*	*74.2*	*78.9*	*73.4*	*71.8*	*77.1*
Clerical support	18.7	13.2	30.0	17.9	12.4	30.5	17.3	12.6	27.8
Service and sales workers	11.3	7.3	19.5	9.8	6.6	17.2	9.6	6.5	16.7
Craft and related trades workers	17.1	22.9	5.2	18.9	24.5	6.0	16.1	21.0	5.1
Plant and machine operators and assemblers	15.8	20.3	6.5	17.5	21.6	8.0	18.6	22.9	9.1
Elementary Occupations	12.1	9.8	16.7	11.6	9.1	17.2	11.8	8.8	18.4
Firm characteristics									
Sector of activity - NACE1 (%):									
B - Mining and Quarrying	0.2	0.3	0.1	0.2	0.3	0.1	0.3	0.4	0.1
C - Manufacturing	33.3	39.0	21.7	38.0	42.8	26.9	44.5	50.5	30.7
D - Electricity, gas, steam and air conditioning supply	1.2	1.4	0.8	1.4	1.5	1.0	1.9	2.2	1.4
E - Water supply, sewerage, waste management and remediation activities	0.8	1.0	0.5	0.9	1.1	0.7	1.1	1.3	0.8
F - Construction	7.6	10.5	1.7	8.8	11.7	2.1	6.3	8.4	1.6
G - Wholesale and retail trade, repair of motor vehicles and motorcycles	19.2	15.8	26.1	18.7	15.3	26.5	15.0	11.7	22.4
H - Transportation and storage	9.5	10.9	6.6	8.9	10.0	6.3	8.0	8.8	6.3
I - Accommodation and food service activities	2.8	2.1	4.4	2.6	1.9	4.3	1.8	1.2	3.1
J - Information and communication	4.5	4.7	4.3	4.3	4.2	4.5	4.5	4.3	4.8
K - Financial and insurance activities	1.2	0.9	1.7	1.0	0.7	1.6	1.0	0.7	1.6
L - Real Estate activities	0.3	0.2	0.4	0.2	0.2	0.4	0.1	0.1	0.1
M - Professional, scientific and technical activities	4.8	4.2	6.1	4.0	3.4	5.7	3.1	2.6	4.3
N - Administrative and support service activities	11.6	7.6	19.8	10.9	6.9	20.0	12.4	7.8	22.8
P - Education	0.5	0.6	0.3	-	-	-	-	-	-
Q - Human health and social work activities	2.0	0.6	4.8	-	-	-	-	-	-
R - Arts, entertainment and recreation	0.1	0.1	0.2	-	-	-	-	-	-
U - Other service activities	0.3	0.3	0.5	-	-	-	-	-	-
Size of the firm (FTE number of employees)	497.0	572.8	341.4	492.7	544.0	374.6	670.7	747.5	496.6
Firm-level collective wage agreement (Yes) (%)	26.6	28.3	23.1	28.0	29.4	24.7	36.5	38.5	32.0
Region where the firm is located (%):									
Brussels	14.3	13.2	16.5	13.2	12.0	16.0	13.8	12.8	15.9
Flanders	63.5	63.9	62.6	64.9	65.3	64.1	63.4	63.6	63.1
Wallonia	22.2	22.9	20.9	21.9	22.7	19.9	22.8	23.6	21.0
Number of observations	1,604,835	1,080,674	524,161	1,241,330	868,234	373,096	628,142	440,142	188,000

Notes: Sample covers workers aged 15-75. [a] At 2013 constant prices. [b] 'Other households' refer to brothers/sisters living together, friends living together, students or workers' homes, etc. [c] A worker is recognized as a part-time employee if he/she works less than 30 hours per week. [d] Overtime is when an employee works more than his/her contractual working hours. [e] We removed observations from companies not operating in the private sector, reporting no positive profits, reporting information for less than 10 employees; and observations from individuals with no positive earnings. [f] We removed observations from firms which are only observed one single year; and observations for which information on the two other instruments (i.e. a dummy variable indicating whether more than 50% of the firm is privately owned or not, and the average log of profits per hour of firms in the same three-digit NACE sector and in the same year but in other Belgian regions) are missing. Source: STATBEL, 1999-2016.

Appendix 2 - First-stage results: Benchmark

	Log (profits per hour worked)		
	Whole sample	**Men**	**Women**
	(1)	**(2)**	**(3)**
One-year lagged value of log (profits)	0.729***	0.715***	0.762***
	(0.019)	(0.020)	(0.022)
Type of firm's financial and economic control[a]	0.064	0.084	0.012
	(0.052)	(0.056)	(0.054)
Log (average profits per hour worked in the same NACE 3-digit sector, but in regions other than the one in which the firm operates)	0.068***	0.070***	0.061***
	(0.020)	(0.022)	(0.020)
Adjusted R-squared	0.78	0.74	0.84
2SLS Tests			
Weak identification test (Cragg-Donald Wald F statistic)	2.3e+05	1.5e+05	8.5e+04
Overidentification test (Hansen J p-value)	0.73	0.95	0.19
Endogeneity test (p-value)	0.00	0.00	0.00
Control variables			
Year fixed effects[b]	Yes	Yes	Yes
Worker characteristics[c]	Yes	Yes	Yes
Employment characteristics[d]	Yes	Yes	Yes
Firm characteristics[e]	Yes	Yes	Yes

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] Dummy variable which takes the value 1 if more than 50% of the company is privately owned. [b] 17 year dummies. [c] Age, tenure, squared tenure, education and type of household. [d] Type of contract, part-time work, overtime work and occupations (ISCO2). [e] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. Source: STATBEL, 1999-2016.

Appendix 3 – Full-time workers: Rent-sharing and workers' gender

	Log (real gross hourly wage)		
	(1)	**(2)**	**(3)**
	OLS	**OLS**	**2SLS[f]**
Whole sample			
Log (profits per hour worked)	0.079***	0.022***	0.029***
	(0.006)	(0.002)	(0.003)
Observations	569,031	569,031	569,031
Adjusted R-squared	0.11	0.66	0.55
Panel A: Men			
Log (profits per hour worked) [1]	0.081***	0.022***	0.029***
	(0.007)	(0.002)	(0.003)
Observations	423,147	423,147	423,147
Adjusted R-squared	0.11	0.66	0.55
Panel B: Women			
Log (profits per hour worked) [2]	0.072***	0.021***	0.027***
	(0.006)	(0.003)	(0.003)
Observations	145,884	145,884	145,884
Adjusted R-squared	0.13	0.65	0.53
Control variables			
Year fixed effects[a]	Yes	Yes	Yes
Worker characteristics[b]	No	Yes	Yes
Employment characteristics[c]	No	Yes	Yes
Firm characteristics[d]	No	Yes	Yes
Test for equality of coefficients (p-value)[e]			
[1] = [2]	0.15	0.60	0.48

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] 17 year dummies. [b] Age, tenure, squared tenure, education and type of household. [c] Type of contract, part-time work, overtime work and occupations (ISCO2). [d] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. [e] The null hypothesis of the test specifies that the estimates are not statistically different from each other. Source: STATBEL, 1999-2016.

Appendix 4 - First-stage results: Level of education

	Log (profits per hour worked)					
	2SLS Secondary-educated workers			2SLS Tertiary-educated workers		
	Whole sample (1)	**Men** (2)	**Women** (3)	**Whole sample** (1)	**Men** (2)	**Women** (3)
One-year lagged values of log (profits)	0.714*** (0.022)	0.699*** (0.024)	0.751*** (0.030)	0.752*** (0.019)	0.742*** (0.021)	0.770*** (0.019)
Type of firm's financial and economic control[a]	0.031 (0.058)	0.064 (0.064)	-0.064 (0.054)	0.114* (0.059)	0.112* (0.060)	0.126** (0.063)
Log (average profits per hour worked in other Belgian regions than the one in which the firm operates)	0.073*** (0.024)	0.074*** (0.026)	0.066** (0.027)	0.056*** (0.020)	0.060*** (0.022)	0.050** (0.021)
Adjusted R-squared	0.76	0.72	0.83	0.78	0.76	0.82
2SLS Tests						
Weak identification test (Cragg-Donald Wald F statistic)	1.4e+05	9.5e+04	5.1e+04	8.5e+04	5.3e+04	3.2e+04
Overidentification test (Hansen J p-value)	0.62	0.88	0.11	0.75	0.42	0.83
Endogeneity test (p-value)	0.02	0.04	0.01	0.00	0.00	0.03
Control variables						
Year fixed effects[b]	Yes	Yes	Yes	Yes	Yes	Yes
Worker characteristics[c]	Yes	Yes	Yes	Yes	Yes	Yes
Employment characteristics[d]	Yes	Yes	Yes	Yes	Yes	Yes
Firm characteristics[e]	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] Dummy variable which takes the value 1 if more than 50% of the company is privately owned. [b] 17 year dummies. [c] Age, tenure, squared tenure, education and type of household. [d] type of contract, part-time work, overtime work and occupations (ISCO2). [e] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. Source: STATBEL, 1999-2016.

Appendix 4 (continued) - First-stage results: Field of study (Tertiary-educated workers)

	Log (profits per hour worked)					
	2SLS Non-STEM			2SLS STEM		
	Whole sample (1)	**Men** (2)	**Women** (3)	**Whole sample** (1)	**Men** (2)	**Women** (3)
One-year lagged values of log (profits)	0.763*** (0.017)	0.755*** (0.018)	0.768*** (0.018)	0.739*** (0.025)	0.733*** (0.026)	0.771*** (0.028)
Type of firm's financial and economic control[a]	0.123* (0.067)	0.092 (0.075)	0.147** (0.067)	0.142** (0.060)	0.141** (0.060)	0.149** (0.065)
Log (average profits per hour worked in other Belgian regions than the one in which the firm operates)	0.037 (0.023)	0.035 (0.025)	0.039 (0.025)	0.066*** (0.023)	0.066*** (0.025)	0.060*** (0.022)
Adjusted R-squared	0.80	0.78	0.82	0.76	0.74	0.82
2SLS Tests						
Weak identification test (Cragg-Donald Wald F statistic)	3.4e+04	1.5e+04	1.9e+04	3.1e+04	2.6e+04	5854.50
Overidentification test (Hansen J p-value)	0.43	0.54	0.53	0.13	0.10	0.58
Endogeneity test (p-value)	0.05	0.05	0.19	0.00	0.01	0.02
Control variables						
Year fixed effects[b]	Yes	Yes	Yes	Yes	Yes	Yes
Worker characteristics[c]	Yes	Yes	Yes	Yes	Yes	Yes
Employment characteristics[d]	Yes	Yes	Yes	Yes	Yes	Yes
Firm characteristics[e]	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] Dummy variable which takes the value 1 if more than 50% of the company is privately owned. [b] 17 year dummies. [c] Age, tenure, squared tenure, education and type of household. [d] type of contract, part-time work, overtime work and occupations (ISCO2). [e] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. Source: STATBEL, 1999-2016.

Appendix 4 (continued) - First-stage results: Tenure

	Log (profits per hour worked)					
	2SLS Less than 10 years			**2SLS 10 years or more**		
	Whole sample (1)	**Men** (2)	**Women** (3)	**Whole sample** (1)	**Men** (2)	**Women** (3)
One-year lagged values of log (profits)	0.731*** (0.019)	0.717*** (0.019)	0.758*** (0.026)	0.721*** (0.022)	0.709*** (0.024)	0.762*** (0.020)
Type of firm's financial and economic control[a]	0.044 (0.055)	0.069 (0.062)	-0.010 (0.056)	0.076 (0.054)	0.091 (0.060)	0.042 (0.053)
Log (average profits per hour worked in other Belgian regions than the one in which the firm operates)	0.068*** (0.017)	0.071*** (0.018)	0.057*** (0.020)	0.070** (0.028)	0.071** (0.032)	0.067*** (0.022)
Adjusted R-squared	0.80	0.76	0.86	0.71	0.69	0.77
2SLS Tests						
Weak identification test (Cragg-Donald Wald F statistic)	1.4e+05	8.8e+04	5.5e+04	8.5e+05	5.8e+04	2.9e+04
Overidentification test (Hansen J p-value)	0.71	0.96	0.36	0.95	0.99	0.39
Endogeneity test (p-value)	0.00	0.01	0.02	0.00	0.00	0.00
Control variables						
Year fixed effects[b]	Yes	Yes	Yes	Yes	Yes	Yes
Worker characteristics[c]	Yes	Yes	Yes	Yes	Yes	Yes
Employment characteristics[d]	Yes	Yes	Yes	Yes	Yes	Yes
Firm characteristics[e]	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] Dummy variable which takes the value 1 if more than 50% of the company is privately owned. [b] 17 year dummies. [c] Age, tenure, squared tenure, education and type of household. [d] type of contract, part-time work, overtime work and occupations (ISCO2). [e] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. Source: STATBEL, 1999-2016.

Appendix 4 (continued) - First-stage results: Occupation

	Log (profits per hour worked)					
	2SLS Non-managers			2SLS Managers		
	Whole sample (1)	Men (2)	Women (3)	Whole sample (1)	Men (2)	Women (3)
One-year lagged values of log (profits)	0.719*** (0.021)	0.701*** (0.023)	0.760*** (0.028)	0.741*** (0.020)	0.734*** (0.021)	0.755*** (0.022)
Type of firm's financial and economic control[a]	0.031 (0.059)	0.066 (0.067)	-0.065 (0.053)	0.133** (0.058)	0.113* (0.058)	0.193*** (0.064)
Log (average profits per hour worked in other Belgian regions than the one in which the firm operates)	0.065*** (0.023)	0.069*** (0.026)	0.052** (0.024)	0.074*** (0.020)	0.074*** (0.021)	0.074*** (0.023)
Adjusted R-squared	0.76	0.72	0.83	0.78	0.75	0.83
2SLS Tests						
Weak identification test (Cragg-Donald Wald F statistic)	1.5e+05	9.3e+04	6.0e+04	7.7e+04	5.4e+04	2.3e+04
Overidentification test (Hansen J p-value)	0.53	0.92	0.03	0.77	0.69	0.54
Endogeneity test (p-value)	0.01	0.03	0.01	0.00	0.00	0.07
Control variables						
Year fixed effects[b]	Yes	Yes	Yes	Yes	Yes	Yes
Worker characteristics[c]	Yes	Yes	Yes	Yes	Yes	Yes
Employment characteristics[d]	Yes	Yes	Yes	Yes	Yes	Yes
Firm characteristics[e]	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] Dummy variable which takes the value 1 if more than 50% of the company is privately owned. [b] 17 year dummies. [c] Age, tenure, squared tenure, education and type of household. [d] type of contract, part-time work, overtime work and occupations (ISCO2). [e] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. Source: STATBEL, 1999-2016.

Appendix 4 (continued) - First-stage results: Wage Agreement

	Log (profits per hour worked)					
	2SLS Sector			**2SLS Firm**		
	Whole sample (1)	**Men** (2)	**Women** (3)	**Whole sample** (1)	**Men** (2)	**Women** (3)
One-year lagged values of log (profits)	0.741*** (0.022)	0.725*** (0.023)	0.775*** (0.026)	0.700*** (0.030)	0.687*** (0.033)	0.731*** (0.029)
Type of firm's financial and economic control[a]	-0.026 (0.052)	-0.019 (0.052)	-0.031 (0.063)	0.222** (0.098)	0.260** (0.111)	0.094 (0.081)
Log (average profits per hour worked in other Belgian regions than the one in which the firm operates)	0.073*** (0.021)	0.083*** (0.023)	0.050** (0.022)	0.067* (0.038)	0.057 (0.043)	0.089** (0.037)
Adjusted R-squared	0.81	0.78	0.85	0.69	0.66	0.79
2SLS Tests						
Weak identification test (Cragg-Donald Wald F statistic)	1.7e+05	1.1e+05	6.0e+04	6.4e+04	4.2e+04	2.4e+04
Overidentification test (Hansen J p-value)	0.33	0.42	0.25	0.90	0.72	0.59
Endogeneity test (p-value)	0.01	0.05	0.01	0.00	0.00	0.04
Control variables						
Year fixed effects[b]	Yes	Yes	Yes	Yes	Yes	Yes
Worker characteristics[c]	Yes	Yes	Yes	Yes	Yes	Yes
Employment characteristics[d]	Yes	Yes	Yes	Yes	Yes	Yes
Firm characteristics[e]	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1. [a] Dummy variable which takes the value 1 if more than 50% of the company is privately owned. [b] 17 year dummies. [c] Age, tenure, squared tenure, education and type of household. [d] type of contract, part-time work, overtime work and occupations (ISCO2). [e] Belgian region of activity, size of the firm (FTE number of workers in log) and firm-level collective agreement. Source: STATBEL, 1999-2016.

Appendix 5 - Oaxaca-Blinder decompositions (based on 2SLS estimations) between male and female workers: How much does rent-sharing matter?

		Decomposition of total men-women wage gap: **Log (profits per hour worked)**				
		Total men-women wage gap	Explained wage gap	% of the total wage gap	Unexplained wage gap	% of the total wage gap
Level of education	**Secondary-educated workers**	0.151*** (0.010)	0.009*** (0.002)	*5.5%*	0.013 (0.009)	*6.8%*
	Tertiary-educated workers	0.200*** (0.009)	0.003* (0.002)	*1.5%*	0.016 (0.011)	*2.6%*
Field of study	**Non-STEM**	0.215*** (0.007)	0.002* (0.001)	*0.9%*	0.012 (0.011)	*3.8%*
	STEM	0.127*** (0.011)	-0.003 (0.004)	*2.2%*	0.017 (0.016)	*4.5%*
Tenure	**Less than 10 years**	0.126*** (0.009)	0.008*** (0.002)	*6.4%*	0.005 (0.007)	*3.5%*
	10 years or more	0.153*** (0.013)	0.003** (0.002)	*2.0%*	0.015 (0.011)	*5.0%*
Occupation	**Non-managers**	0.126*** (0.009)	0.007*** (0.002)	*5.3%*	0.011 (0.009)	*7.3%*
	Managers	0.150*** (0.013)	0.004 (0.003)	*2.4%*	0.018 (0.012)	*6.5%*
Wage Agreement	**Sector**	0.142*** (0.009)	0.009*** (0.002)	*6.1%*	0.004 (0.007)	*2.5%*
	Firm	0.159*** (0.017)	0.003 (0.002)	*1.9%*	0.029* (0.015)	*15.5%*

Notes: Robust standard errors in parentheses, which are clustered at the firm level. *** p<0.01, ** p<0.05, * p<0.1.
Source: STATBEL, 1999-2016.

INSTITUT DE RECHERCHE
ÉCONOMIQUES ET SOCIALES

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