# WHY WOMEN EARN LESS

## GENDER PAY GAP AND LABOUR-MARKET INEQUALITIES IN ETHIOPIA

UN WOMEN

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UN Women is the United Nations organization dedicated to gender equality and the empowerment of women. A global champion for women and girls, UN Women was established to accelerate progress on meeting their needs worldwide. UN Women supports United Nations Member States as they set global standards for achieving gender equality and works with governments and civil society organizations to design laws, policies, programmes and services needed to implement these standards. It stands behind women's equal participation in all aspects of life, focusing on five priority areas: increasing women's leadership and participation; ending violence against women; engaging women in all aspects of peace and security processes; enhancing women's economic empowerment; and making gender equality central to national development planning and budgeting. UN Women also coordinates and promotes the United Nations system's work in advancing gender equality.

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# 1 INTRODUCTION

# 1 INTRODUCTION

Despite progress in women's economic and political participation, formal employment and education attainment, a gender pay gap remains a pervasive labour-market feature across the world. Globally, women earn only 73 cents for each US dollar earned by men.[1] The gender pay gap is a broader reflection of the work-related and economic inequality of women, including their lack of economic independence, lack of decision-making power both in the household (e.g. spending decisions) and in society (e.g. managerial decisions), and experience of violence. Ethiopia is a low-income country with a population of 123,379,924 million (in 2022),[2] and is the second most populous nation in Africa.[3] Since the start of the 21st century, the country has made progress towards gender equality in terms of women's economic and political participation, formal employment and education attainment. For instance, as at February 2021, 38.8 per cent of seats in parliament were held by women.[4] Yet, the gender pay gap is still a pervasive labour-market feature in Ethiopia.

The existence and persistence of the gender pay gap has unfavourable outcomes at both the individual and societal levels. For example, the gap is more frequently connected with higher levels of poverty and inequality among women. Moreover, women's pay being lower than men's during their working years translates into women's incomes from social security and pensions after retirement and other social benefits, such as life insurance, also being lower. The adverse effects of shorter working hours and low-paid jobs, typically associated more with women than with men, are reflected in lower pension levels, lower seniority premiums and lower levels of other coverage related to employment contributory schemes.[5] Ethiopia reduced its poverty rates from 34.6 per cent in 2004 to 17 per cent in 2015, based on the US$2.15 per day poverty line.[6] The country stands out as one of the most rapidly growing economies in the region, experiencing an estimated growth of 6.4 per cent in the financial year 2021/22. Despite this economic momentum, Ethiopia continues to grapple with poverty, boasting a per capita average gross national income of only US$1,020. The country has set an ambitious goal to achieve lower-middle-income status by the year 2025.[7] Addressing the gender pay gap would contribute to poverty reduction and reduce inequality.

When households and society undervalue women, other severe outcomes become likely. As a result of low economic power within the household, some women may tolerate abusive and unhealthy relationships, and domestic violence. Women's families are likely to benefit when the share of household income that women control increases; for instance, women tend to invest more in their children's nutrition, health, education and housing with increased income.[8] Overall, women's lower earnings can lead to a reduction in bargaining power and less independence, and lifetime income inequality between genders, which contributes to maintaining the lower status of women in society and ultimately contributes to lower rates of gross domestic product (GDP) and GDP growth.

The objective of the present study is to present an overview of the adjusted gender pay gap and labour-market inequalities in Ethiopia. This is part of a larger 2023 UN Women study titled "Why Women Earn Less: Gender Pay Gap and Labour-Market Inequalities in East and Southern Africa". Understanding the gender pay gap and its determinants would raise awareness among employees, employers and policymakers; lead to actions for the mitigation of economic inequalities; support women in realizing their productive potential;

and ultimately support economic growth. Therefore, the study contributes to achieving the Sustainable Development Goals (SDGs) for gender equality, within SDG 5, and for decent work and economic growth, within SDG 8. SDG 5 considers inequality more broadly than simply in terms of the gender pay gap: its ambition is to achieve gender equality in the labour market (e.g. equal access to jobs and top decision-making roles), in education (e.g. achieving gender parity in education), in access to health and in an array of other target areas, with the aims of reducing gender-based violence and discrimination, and empowering women and girls. SDG 8 also seeks to promote the collection and dissemination of sex disaggregated data on other labour-market indicators, including on employment, unemployment, informal employment and rates of those not in education, employment or training.

The report is structured as follows. Chapter 2 briefly discusses the methodology and data used in this study, Chapter 3 presents the main findings of the study and, finally, Chapter 4 concludes.

# 2 METHODOLOGY AND DATA

# 2 METHODOLOGY AND DATA

The study analyses the gender pay gap and other labour-market inequalities in the country using quantitative techniques from labour economics, including regression analysis, quantile regression analysis, Oaxaca–Blinder decomposition and segregation indices. These methodologies disentangle multifaceted factors contributing to the gender pay gap to understand the drivers of gender-based labour-market disparities in the country.

The **raw** or **unadjusted gender pay gap** is the difference between the average pay earned by women and men in the labour market, expressed as a percentage of the average pay for men:[9]

$$\text{Gender pay gap} = \frac{\text{(Men's average pay - women's average pay)}}{\text{(Men's average pay)}} \times 100\%$$

Such a raw gender pay gap hides important information about how personal and labour-market characteristics affect the wage differential. Thus, the Mincerian earnings function[10] is used to analyse wages as a function of the productive capacity of an individual. The Mincerian earnings function takes the form:

$$ln(y_t) = \alpha + \beta_i gender_i + \sum \gamma_j * X'_t + \varepsilon_i \quad (1)$$

where $ln(y_t)$ is the log of the hourly wage of person $i$; $gender_i$ is a dummy variable, taking a value of 1 for women and 0 for men; and $X'_t$ is a vector of other individual and labour-market characteristics (including education, age and its square, experience, tenure, occupation and sector).[11] The coefficient $\beta_1$ measures the **adjusted** gender pay gap. If the vector of explanatory variables $X'_t$ is not included, then $\beta_1$ would measure the **unadjusted** gender pay gap, i.e. the calculation would estimate only a simple difference of logged mean wages.

Specifically, the empirical models estimated are:

$$ln(y_t) = \alpha + \beta_i gender_i + \varepsilon_i \quad (2)$$

$$ln(y_t) = \alpha + \beta_i gender_i + \beta_2 age_i + \beta_3 age\_squares_i + \beta_4 education_i + \varepsilon_i \quad (3)$$

$$ln(y_t) = \alpha + \beta_i gender_i + \beta_2 age_i + \beta_3 age\_squares_i + \beta_4 education_i + \beta_5 marital\_status_i + \varepsilon_i \quad (4)$$

$$ln(y_t) = \alpha + \beta_i gender_i + \beta_2 age_i + \beta_3 age\_squares_i + \beta_4 education_i + \beta_5 marital\_status_i + \beta_6 sectors_i + \varepsilon_i \quad (5)$$

$$ln(y_t) = \alpha + \beta_i gender_i + \beta_2 age_i + \beta_3 age\_squares_i + \beta_4 education_i + \beta_5 marital\_status_i + \beta_6 occupations_i + \varepsilon_i \quad (6)$$

$$ln(y_t) = \alpha + \beta_i gender_i + \beta_2 age_i + \beta_3 age\_squares_i + \beta_4 education_i + \beta_5 marital\_status_i + \beta_6 sectors_i + \beta_7 occupations_i + \varepsilon_i \quad (7)$$

$$ln(y_i) = \alpha + \beta_i gender_i + \beta_2 age_i + \beta_3 age\_squares_i + \beta_4 education_i + \beta_5 marital\_status_i + \beta_6 sectors_i + \beta_7 occupations_i + \beta_8 informal\_job_i + \varepsilon_i \quad (8)$$

where notations are self-explanatory.

A regression estimate of the raw pay gap is performed using Equation 2, with gender being the only explanatory variable. In Equation 2, age and its square, and education, represented by three levels – (1) primary or lower, (2) secondary and (3) tertiary or higher – are added as individual characteristics to explain the gender pay gap. Note that information on work experience or tenure was not available from the survey used for this study. In Equation 4, marital status is added, represented by two levels: (1) married and (2) single and other individuals. In Equation 5, occupation dummies (reference category: managers) are added and occupations are defined using the one-digit International Standard Classification of Occupations (ISCO-08) classification.[12] In Equation 6, instead of occupation, sector dummies (reference category: agriculture) are added and sectors are defined using the one-digit Statistical Classification of Economic Activities in the European Community (NACE) Rev.2 classification.[13] In Equation 7, both sector and occupation dummies are added. Finally, in Equation 8, an indicator of whether or not a job is undertaken with or without written contract (formality status) is added. For estimation, ordinary least squares (OLS) estimates were used.

The study also estimates the gender pay gap at different percentiles of the pay distribution. The quantile regression was developed as a semi-parametric method used to analyse pay, considering pay structure and distribution.[14] While OLS estimates report the mean effects, the quantile regression method allows for the study of the marginal effects of covariates on the dependent variable at various points in the pay distribution, not only the mean. Hence, in this work, quantile regression is used, providing estimates of the gender pay gap for each of the 10 deciles along the pay distribution, as well as for the top centile. The algorithm developed by Koenker and Bassett,[15] which is based on conditional quantile regressions, is followed.

The sociologist and demographer Evelyn Kitagawa first introduced decomposition techniques in 1955.[16] The standard decomposition technique, widely applied to the gender pay gap, was introduced to economics by Oaxaca[17] and Blinder.[18] The method enables the decomposition of the mean differences in log wages based on linear regression models in a counterfactual manner. The procedure divides the pay differential between women and men into two parts: one that is "explained" by group differences in productivity characteristics, such as education or work experience; and a residual part (the "unexplained" part) that cannot be accounted for by such differences in pay determinants. This "unexplained" part is often used as a measure of discrimination, but it also includes the effects of group differences in unobservable characteristics. More information about this methodology can be found in Fortin et al., 2011.[19]

Although the analysis focuses on the gender pay gaps, other indicators relating to gender inequalities in labour markets in East and Southern Africa are also used and calculated. The first part of the analysis is to observe the gender employment gap, which is the difference between the employment rates among women and men, expressed in percentage points (p.p.). Furthermore, employment shares per sector, occupation or formality status of the job are used, which are calculated for wage employees only. Using such indicators related to employment, the aim is to capture the differences in the attachment to the labour market by the two genders, reflecting two important ideas. The first idea is that women are usually less

attached to the labour market and, hence, less frequently in employment than men because of the traditional roles that they need to undertake in the household and in taking care of children and the elderly, i.e. unpaid care work. The second idea is the fact that, when employed, women tend to be segregated into specific occupations that are frequently low status and hence lower paid.

Also calculated is the gender hours gap, which is the difference in hours worked between women and men, expressed in "hours". Capturing this difference in hours has two important roles. The first is to draw attention to the differences in gender pay gaps calculated on a monthly versus an hourly level. The basic definition of the gender pay gap uses the average hourly wages of women and men, because wages at monthly levels reflect differences in hours worked (per week or per month), in addition to differences in individual and job characteristics. This leads to the second role of this analysis. It highlights that women work shorter hours than men in paid work. This is because women invest more time in unpaid care activities, hence reducing the time they have available for paid working hours. In addition to this, hours worked are analysed by sector and occupation.

Note that negative values of gaps indicate that women are in a worse position than men.

Horizontal gender segregation is analysed using the Duncan Segregation Index.[20] This is a measure of occupational or sectoral segregation based on gender that gauges whether or not there is a larger than expected presence of one gender over the other in a given occupation or sector. Intuitively, it shows the share of employed women and men who would need to trade places with one another across industries (occupations) for their distribution to become identical.[21] A Duncan Segregation Index value of 0 indicates perfect gender integration within the workforce, while a value of 1 indicates perfect gender segregation. The analysis delves deeper into the "managers" occupational group to investigate vertical segregation, where it was provided beyond the one-digit level. The shares of women and men in each sub-occupation are calculated, to obtain an indication of whether or not women are less represented than men at the very top of the occupational ladder.

This study uses data from Ethiopia's 2021 National Labour Force Survey. This survey comprises 43,335 households and 174,615 individuals, of whom 101,665 are aged 15–64 years and are included in the analysis of employment. To identify if a person is employed or not, employment status as recorded by the survey is used.

There are 20,631 wage employees, and this group forms the basis of the wage analysis. To calculate hourly wages, the period for which the wage refers to (hour, day, week, month, year) is used, and then divided by the usual hours worked per week by the individual. The final wage data set hence comprises 20,599 wage employees.

# 3 RESULTS

# 3 RESULTS

## 3.1 Employment structure

The employment rate in Ethiopia is 67.2 per cent for individuals aged 15–64 years and 67.5 per cent for individuals aged 15 years or above. This is similar to the employment rate of the country (for individuals aged 15 years or above) for 2021 of 67.6 per cent as reported by the World Development Indicators. **Table 1** looks at the employment rate by gender and shows that the employment rate among women is lower than among men, with an employment gap of 22.1 p.p. Employment rates among Ethiopian women are consistently lower than among men, for all age and educational level groups, with the gender employment gap being widest for the older adult age group (33.8 per cent) and similar across all educational levels.

Table 1

**Employment rates of women and men, by age and educational level**

| | Employment rate (%) | | Gender employment gap (p.p.) |
|---|---|---|---|
| | Men | Women | |
| Employment rate | 78.5 | 56.4 | –22.1 |
| Age group (years) | | | |
| 15–24 | 56.4 | 45.3 | –11.1 |
| 25–49 | 91.2 | 64.4 | –26.8 |
| 50–64 | 86.1 | 52.3 | –33.8 |
| Educational level | | | |
| Primary or less | 80.7 | 57.9 | –22.8 |
| Secondary | 69.6 | 48.2 | –21.4 |
| Tertiary or more | 79.6 | 58.6 | –21.0 |

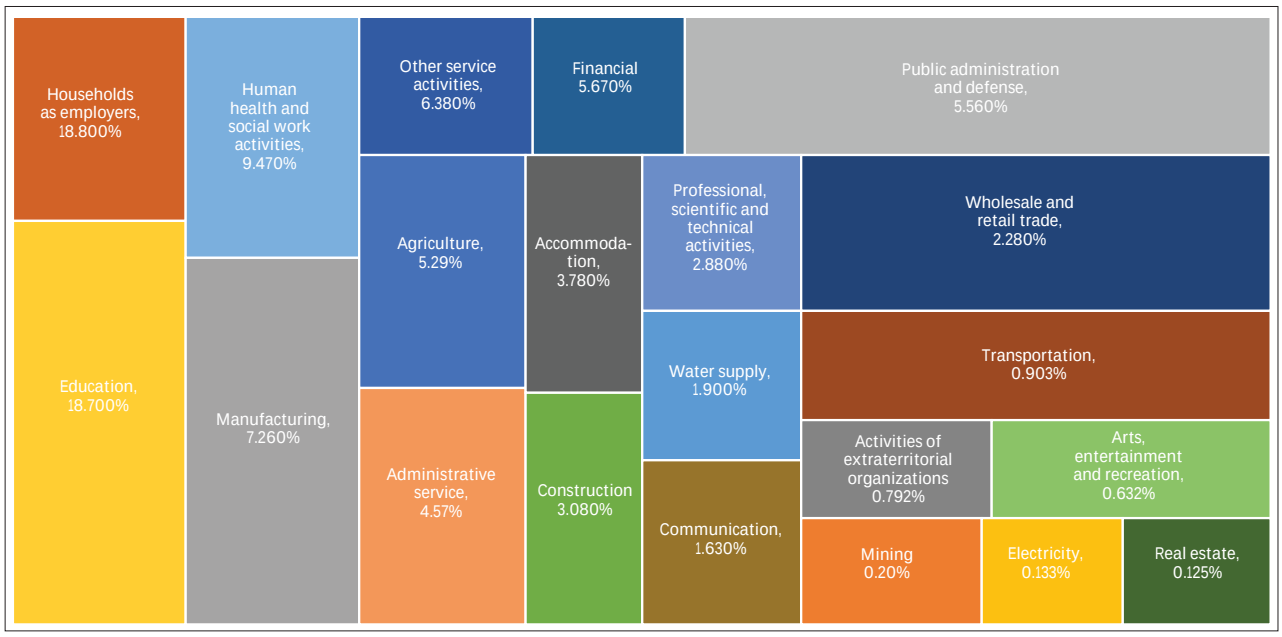
**Source:** *Authors' own calculations.*

**Figure 1** shows that the sectors that account for the most women's employment, in terms of percentages of women's wage employment, are households as employers (18.8 per cent), education (18.7 per cent) and human health and social work activities (9.5 per cent). All of these sectors involve care work. Education (17.6 per cent), construction (11.9 per cent) and other service activities (7.9 per cent) make up the majority of men's wage employment (**Figure 2**). **Figures 3** and **4** show women's and men's employment shares by occupation. Elementary occupations account for the majority of employment for both women and men. About 26.3 per cent of employed women and 27 per cent of employed men are employed in elementary jobs. In addition to this occupational class, Ethiopian women are predominantly employed in high- and medium-skill occupations, for instance as technical professionals (19.5 per cent), professionals (16.6 per cent) and managers (2.1 per cent), as well as in services and sales work (22.2 per cent). After elementary occupations, professionals (19 per cent), technical professionals (16.6 per cent) and services and sales workers (12.5 per cent) are the largest occupational categories for

men. There is some difference in the shares of women and men employed in formal and informal wage employment (**Table A.1**), with women dominating in formal employment and men dominating in informal employment. However, it is important to note that the feminization of informal jobs may be more apparent if data were available on contributing family members.

## Figure 1

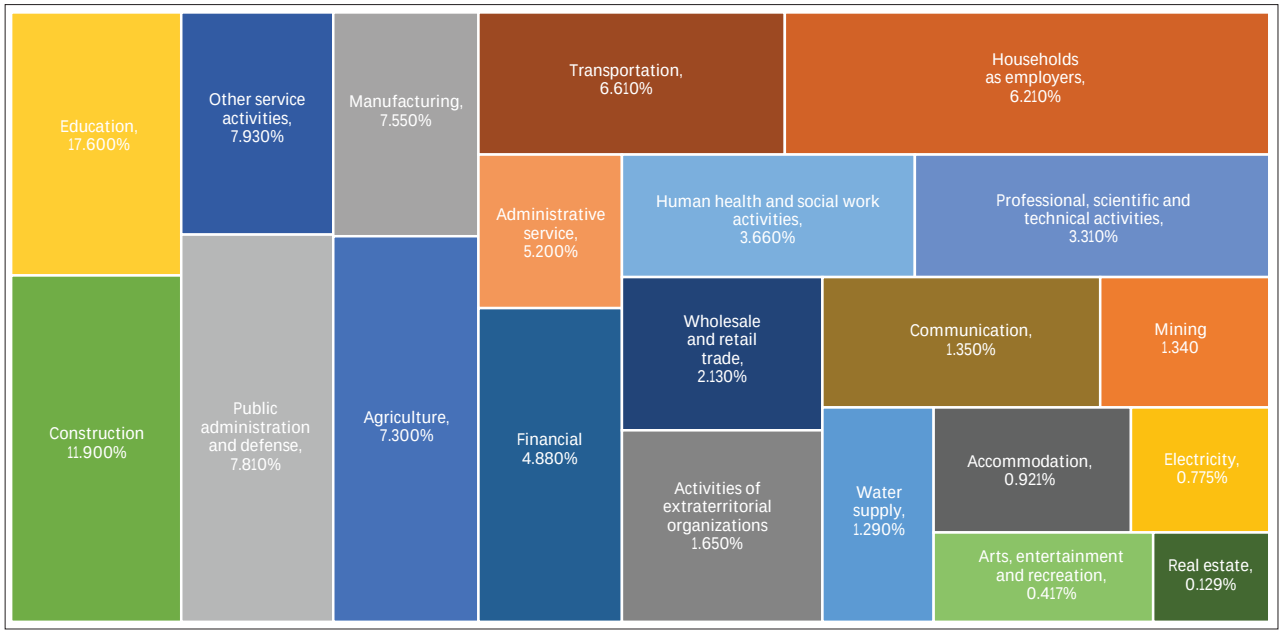
**Women's share of wage employment by sector, as a percentage of women's total employment**




**Source:** *Authors' own calculations.*

## Figure 2

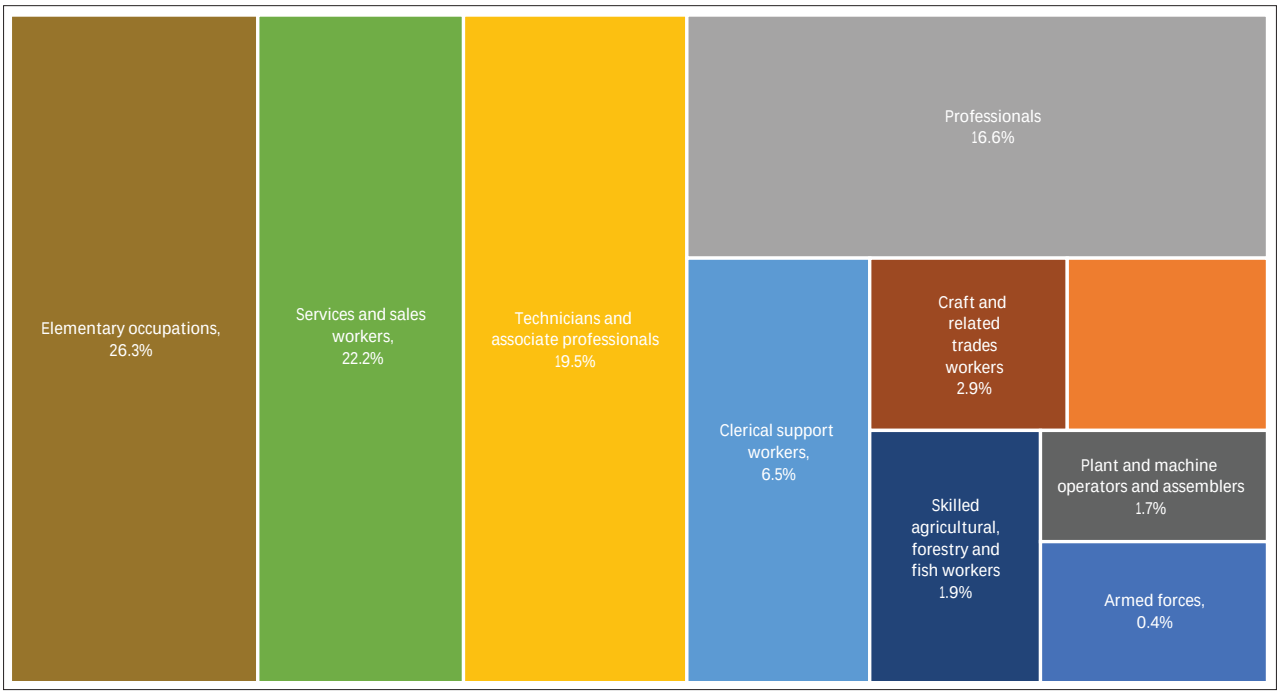
**Men's share of employment by sector, as a percentage of men's total employment**




**Source:** *Authors' own calculations.*

## Figure 3

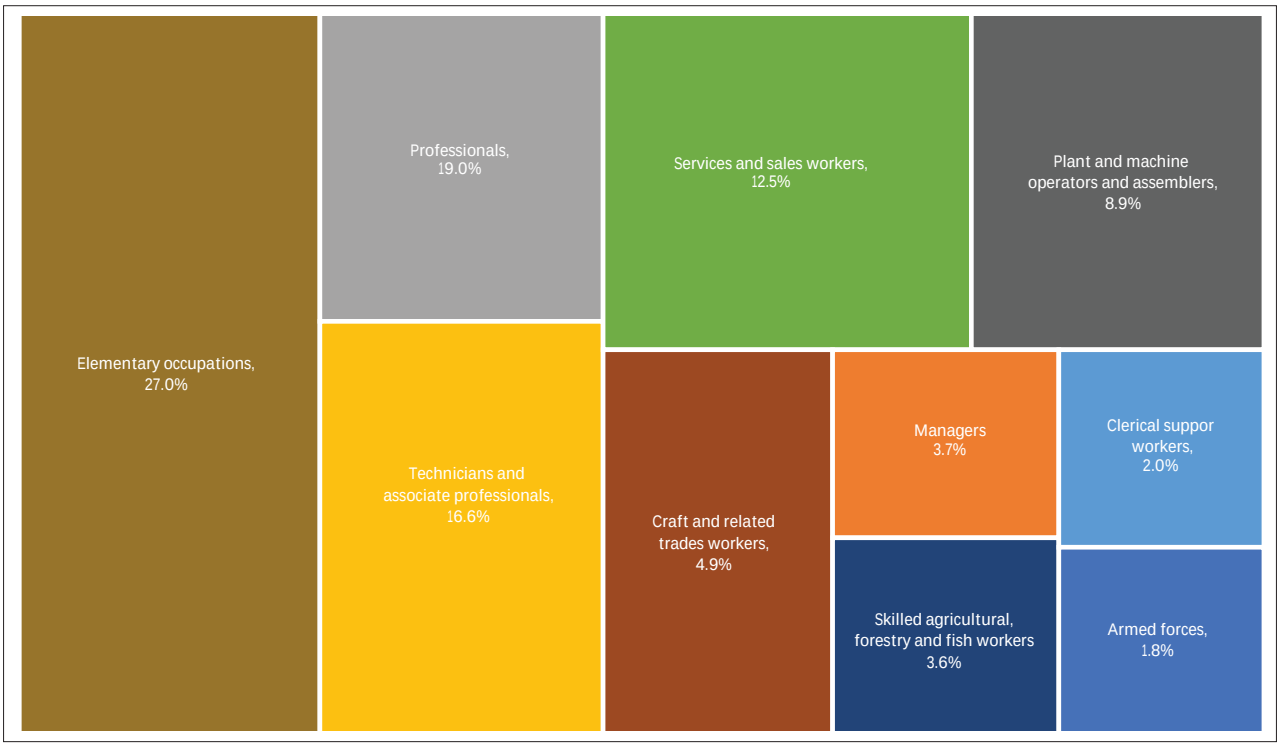
**Women's share of employment by occupation, as a percentage of women's total employment**




**Source:** *Authors' own calculations.*

## Figure 4

**Men's share of employment by occupation, as a percentage of men's total employment**



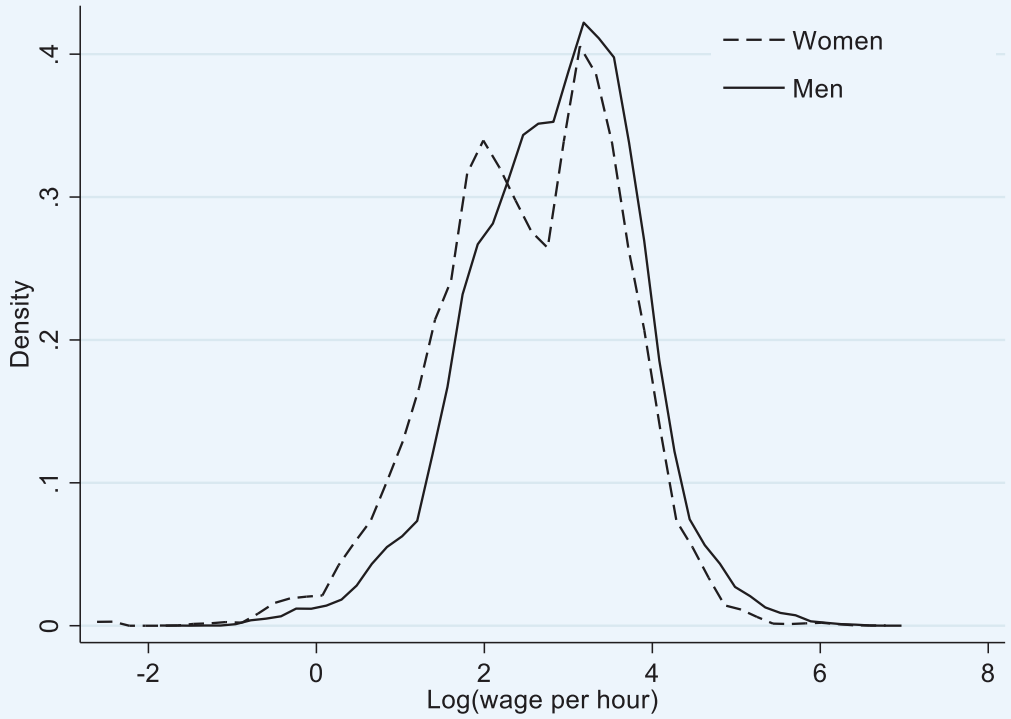

**Source:** *Authors' own calculations.*

## 3.2 Raw gender pay gap

**Figure 5** shows the distribution of the log hourly wages of women and men. The dashed line, representing women, is, in general, to the left of the solid line, representing men, suggesting that women are more likely to earn lower wage levels than men. The two peaks of the wage distribution for women, likewise, are to the left of the peak of the wage distribution for men.

**Figure 5**

**Distribution of log hourly wages, by gender**




**Source:** *Authors' own calculations. Weights used accordingly.*

The raw gender pay gap in Ethiopia is 35.1 per cent when considered at the monthly level and 30.3 per cent when considered at the hourly level (**Table 2**). This suggests that, on average, women work shorter hours than men. From this point onwards, only the hourly gender pay gap is considered. The gap exists for all levels of education attainment, though is widest for the primary and tertiary levels, at 49 per cent and 41.7 per cent, respectively, and significantly narrower for the secondary educational level, at 16.4 per cent. The gap is also affected by marital status, being much wider for single individuals (44.9 per cent) than for married individuals (2.6 per cent).

**Table 2**

**Log wages and raw gender pay gaps, by educational level and marital status**

| | Men | Women | Gender pay gap (%) |
|---|---|---|---|
| Log monthly wages | 8.084 | 7.733 | –35.1 |
| Log hourly wages | 2.843 | 2.54 | –30.3 |
| Log wage per hour, by educational level | | | |
| Primary or less | 2.209 | 1.719 | –49.0 |
| Secondary | 3.184 | 3.02 | –16.4 |
| Tertiary or above | 3.41 | 2.993 | –41.7 |
| Log wage per hour, by marital status | | | |
| Single | 2.66 | 2.211 | –44.9 |
| Married | 2.937 | 2.911 | –2.6 |

**Source:** *Authors' own calculations. Weights used accordingly.*

The raw gender pay gaps vary significantly by sector (**Table 3**). In the sector activities of households as employers, where there women are more highly represented than men, the negative gender pay gap is notably wider than for other sectors, standing at 54.8 per cent – well above the average. In sectors such as human health and social work activities, where women are also more prevalent, the disparity in wages between genders is minimal, at 2.7 per cent. Conversely, in the male-dominated sector transportation and storage, the gender pay gap is positive, at 19.7 per cent, i.e. women receive higher wages than men in this sector, which is possibly indicative of their limited presence in this sector. Meanwhile, in construction, another male-dominated sector, the gender pay gap closely aligns with the overall average.

**Table 3**

**Log wages and raw gender pay gaps, by sector**

| Sector | Log wages per hour | | Gender pay gap (%) |
|---|---|---|---|
| | Men | Women | |
| All | 2.843 | 2.54 | –30.3 |
| Agriculture | 2.096 | 1.94 | –15.6 |
| Mining and quarrying | 2.431 | 3.181 | 75.0 |
| Manufacturing | 2.63 | 2.089 | –54.1 |
| Electricity | 3.394 | 3.422 | 2.8 |
| Water supply | 2.678 | 2.569 | –10.9 |
| Construction | 2.801 | 2.478 | –32.3 |
| Wholesale and retail trade | 2.432 | 2.279 | –15.3 |
| Transportation and storage | 2.757 | 2.954 | 19.7 |

| Sector | Log wages per hour | | Gender pay gap (%) |
|---|---|---|---|
| | Men | Women | |
| Accommodation and food service activities | 2.178 | 1.9 | –27.8 |
| Information and communication | 3.319 | 3.163 | –15.6 |
| Financial and insurance activities | 3.451 | 3.294 | –15.7 |
| Real estate activities | 2.663 | 3.82 | 115.7 |
| Professional, scientific and technical activities | 3.372 | 3.348 | –2.4 |
| Administrative and support service activities | 3.156 | 2.93 | –22.6 |
| Public administration and defence; compulsory social security | 2.948 | 2.908 | –4.0 |
| Education | 3.475 | 3.335 | –14.0 |
| Human health and social work activities | 3.148 | 3.121 | –2.7 |
| Arts, entertainment and recreation | 2.738 | 2.353 | –38.5 |
| Other service activities | 2.216 | 2.101 | –11.5 |
| Activities of households as employers | 2.012 | 1.464 | –54.8 |
| Activities of extraterritorial organizations and bodies | 2.893 | 2.857 | –3.6 |

**Source:** *Authors' own calculations. Weights used accordingly.*

**Table 4** presents the raw gender pay gaps by occupation. Gaps exist for all occupations, except for the category that includes managers, where the wages of women and men are, on average, equal. In clerical work, where women are more represented than men, the gap is negative and 48.1 per cent. The gender pay gap is even more apparent in male-dominated occupations, at 98.5 per cent for craft and related trades workers and 58.7 per cent for plant and machine operators and assemblers.

**Table 4**

**Log wages and raw gender pay gaps, by occupation**

| Occupation | Log wage per hour | | Gender pay gap (%) |
|---|---|---|---|
| | Men | Women | |
| All | 2.843 | 2.54 | –30.3 |
| Armed forces | 2.688 | 2.942 | 25.4 |
| Legislators, government officials, managers | 3.448 | 3.452 | 0.4 |
| Professionals | 3.716 | 3.572 | –14.4 |
| Technicians and associate professionals | 3.328 | 3.26 | –6.8 |
| Clerical support workers | 3.014 | 2.919 | –9.5 |
| Services and sales workers | 2.158 | 1.677 | –48.1 |
| Skilled agricultural, forestry and fishery workers | 2.525 | 2.378 | –14.7 |
| Craft and related trades workers | 2.767 | 1.782 | –98.5 |
| Plant and machine operators and assemblers | 2.779 | 2.192 | –58.7 |
| Elementary occupations | 2.241 | 2.031 | –21.0 |

**Source:** *Authors' own calculations. Weights used accordingly.*

**Table 5** presents the raw gender pay gap by formality status of wage employment and reveals that women in informal employment, despite being represented slightly less than men, face a gender pay gap that is one quarter larger than the overall gender pay gap, at 49.3 per cent. While the gender pay gap in formal employment is 3 p.p. larger than the overall gap.

**Table 5**

**Log wages and raw gender pay gaps, by formality status of wage employment**

| | Log wage per hour | | Gender pay gap (%) |
|---|---|---|---|
| | Men | Women | |
| All | 2.843 | 2.54 | –30.3 |
| Formal | 2.936 | 2.606 | –33.0 |
| Informal | 2.381 | 1.888 | –49.3 |

**Source:** *Authors' own calculations. Weights used accordingly.*

## 3.3 Adjusted gender pay gap

**Table 6** shows regression estimates for log wages, corresponding to estimates derived from Equations 2–8. Row (1) shows the raw gender pay gap previously discussed. The

adjusted gender pay gap in Ethiopia is 13.9 per cent, as shown in row (7). Observable characteristics of individuals and job characteristics explain 16.4 p.p. of the raw gender pay gap, i.e. more than half of it. The rest of the gap is considered unexplained and could be due to differences in personal and labour-market characteristics not included in the data set, self-selection into employment and labour-market discrimination.

The coefficients are analysed group by group. Row (2) adds only personal characteristics and suggests that wages grow with age, though concavely, until about 44 years of age, when they begin to decline. while education offers positive returns, with no stark difference between the benefits of secondary and tertiary educational levels (Table A.2). Personal characteristics explain some of the gender pay gap, as the gender pay gap decreases to 22.1 per cent with their addition. Row (3) adds marital status and this reveals that, after controlling for other personal characteristics, married individuals are paid, on average, 19.3 per cent more than single individuals.

Row (4) adds indicators for sectors, and their addition reduces the adjusted gap to 17.9 per cent. The majority of sectors offer higher wages than agriculture (the reference category), although the wage difference is actually zero for some sectors. Notably, in the transport sector, wages are lower than in agriculture. The addition of occupations (row (5)) further diminishes the adjusted gap, albeit to a slightly lesser extent than the addition of sectors, to 18.5 per cent. This analysis also shows that professionals receive higher pay than managers, while the remaining sectors have either the same or a lower pay level than the managerial sector.

When personal characteristics, sectors and occupations are combined (row (6)), the gap reduces to 13.3 per cent, suggesting a potential interaction between observable characteristics, especially educational level and sectors/occupations. This implies a form of sectoral/occupational segregation of women based on education.

Finally, when adding an indicator for formally status (row (7)), the gender pay gap reduces to 13.9 per cent. Controlling for other labour-market and personal characteristics, informal workers receive 12.5 per cent lower wages than formal workers (Table A.2).

**Table 6**

**Adjusted gender pay gap (regression results on log hourly wages)**

| Row No. | Particular | | Coefficient | Standard error |
|---|---|---|---|---|
| (1) | **Raw/ Unadjusted GPG** | | –0.302*** | (0.028) |
| (2) | **Adjusted GPG** | Personal characteristics only | –0.221*** | (0.024) |
| (3) | | Personal + marriage | –0.202*** | (0.024) |
| (4) | | Personal + sector | –0.179*** | (0.024) |
| (5) | | Personal + occupation | –0.185*** | (0.023) |
| (6) | | Personal + sector + occupation | –0.133*** | (0.023) |
| (7) | | All (personal + sector + occupation + informality) | –0.139*** | (0.023) |

**Source:** *Authors' own calculations. Weights used accordingly.*

**Note:** **, ** and *** represent statistical significance at the 10%, 5% and 1% levels, respectively. Results robust to heteroskedasticity. For detailed regression results, refer to Table A.2.*
*GPG, gender pay gap.*

## 3.4 Gender pay gap decomposition

**Table 7** presents the Oaxaca–Blinder decomposition of the gender pay gap in Ethiopia and concludes that personal and labour-market characteristics explain 14 p.p. of the gap. The unexplained part of the gap is 14.2 p.p., which could be driven by factors not measured in the data set, such as structural differences between women's and men's bargaining power and social networks, as well as labour-market discrimination.

**Table 7**

**Oaxaca–Blinder decomposition of the gender pay gap**

| | Average log hourly wages |
|---|---|
| **Men** | 2.843*** |
| | (0.017) |
| **Women** | 2.540*** |
| | (0.021) |
| **Difference (raw pay gap)** | 0.302*** |
| | (0.027) |
| **Explained part, i.e. explained by characteristics** | 0.140*** |
| | –0.0257 |
| **Unexplained part** | 0.142*** |
| | (0.023) |
| **Interaction of the two parts** | 0.02 |
| | (0.020) |

**Source:** *Authors' own calculations.*

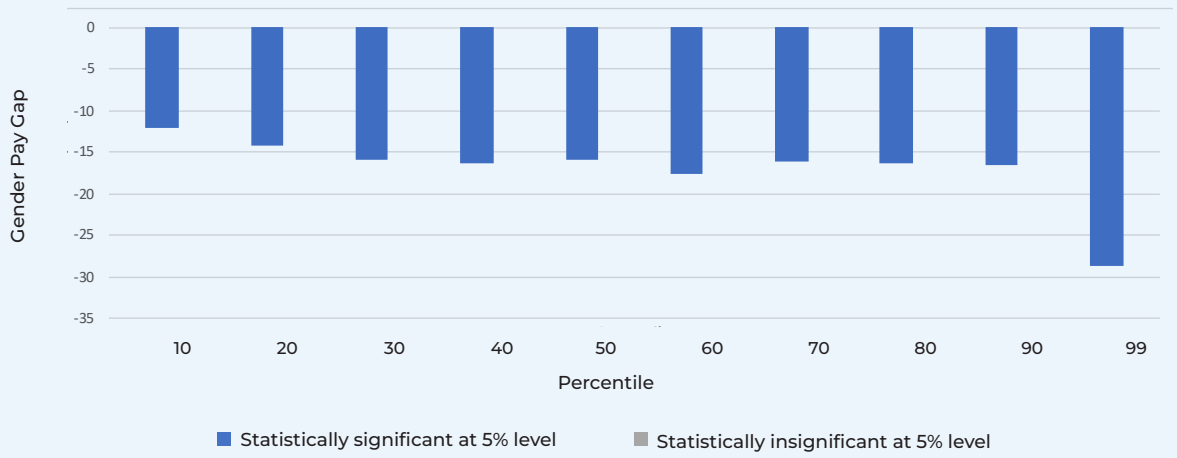
**Note:** **, ** and *** denote statistical significance at the 10%, 5% and 1% levels, respectively. Standard errors given in parentheses. Results robust to heteroskedasticity.*

## 3.5 Adjusted gender pay gap by percentile

Understanding the gender pay gap at various points along the wage distribution provides insights into the existence of a "sticky floor" and a "glass ceiling" in the economy. A "sticky floor" refers to a labour market where individuals, typically women, in low-paying roles encounter limited job mobility and barriers to career advancement. A "glass ceiling" refers to obstacles that hinder women from reaching top managerial and leadership positions. **Figure 6** presents the adjusted pay gap through deciles (and the top centile). The adjusted gender pay gap is 12.1 per cent for the lowest decile, and increases (becomes more negative) through the second, third and fourth lowest deciles, suggesting no sticky floor. The gender pay gap increases further up the wage ladder, reaching 28.8 per cent for the highest percentile of earners, revealing a strong glass ceiling effect.

## Figure 6

**Adjusted gender pay gap by decile and top percentile**



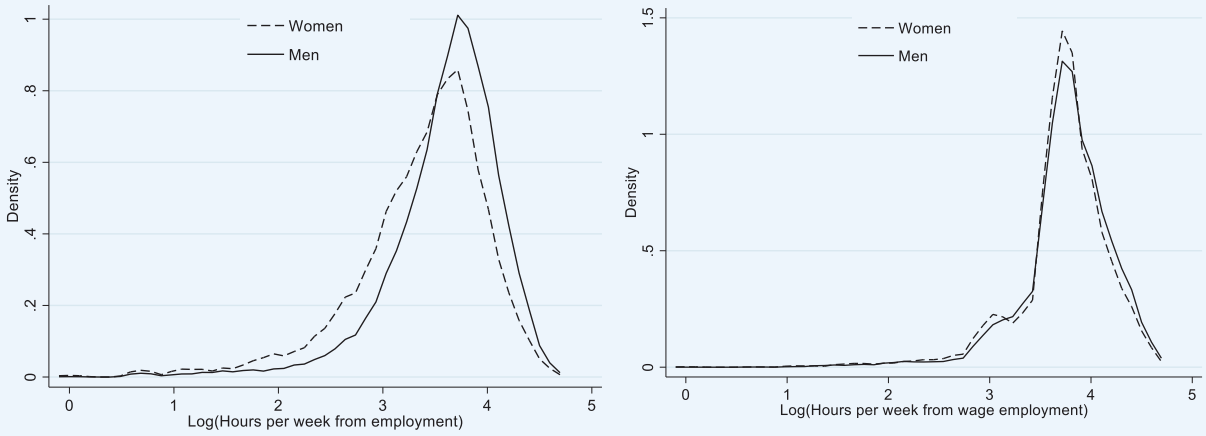

**Source:** *Authors' own calculations. Weights used accordingly*

## 3.6 Gender differences in hours worked in paid employment

**Figure 7** presents a density distribution of hours worked by women and men in total employment and in wage employment only. Women work fewer hours than men along the entire distribution, i.e. for both short and long working hours, when total employment is considered. However, the gap significantly narrows or even vanishes when hours from only wage employment are considered, which reveals that most of the hours gap is derived from non-wage employment (unpaid work in agriculture, self-employment, etc.).

## Figure 7

**Hours worked by women and men in employment (left) and in wage employment (right)**

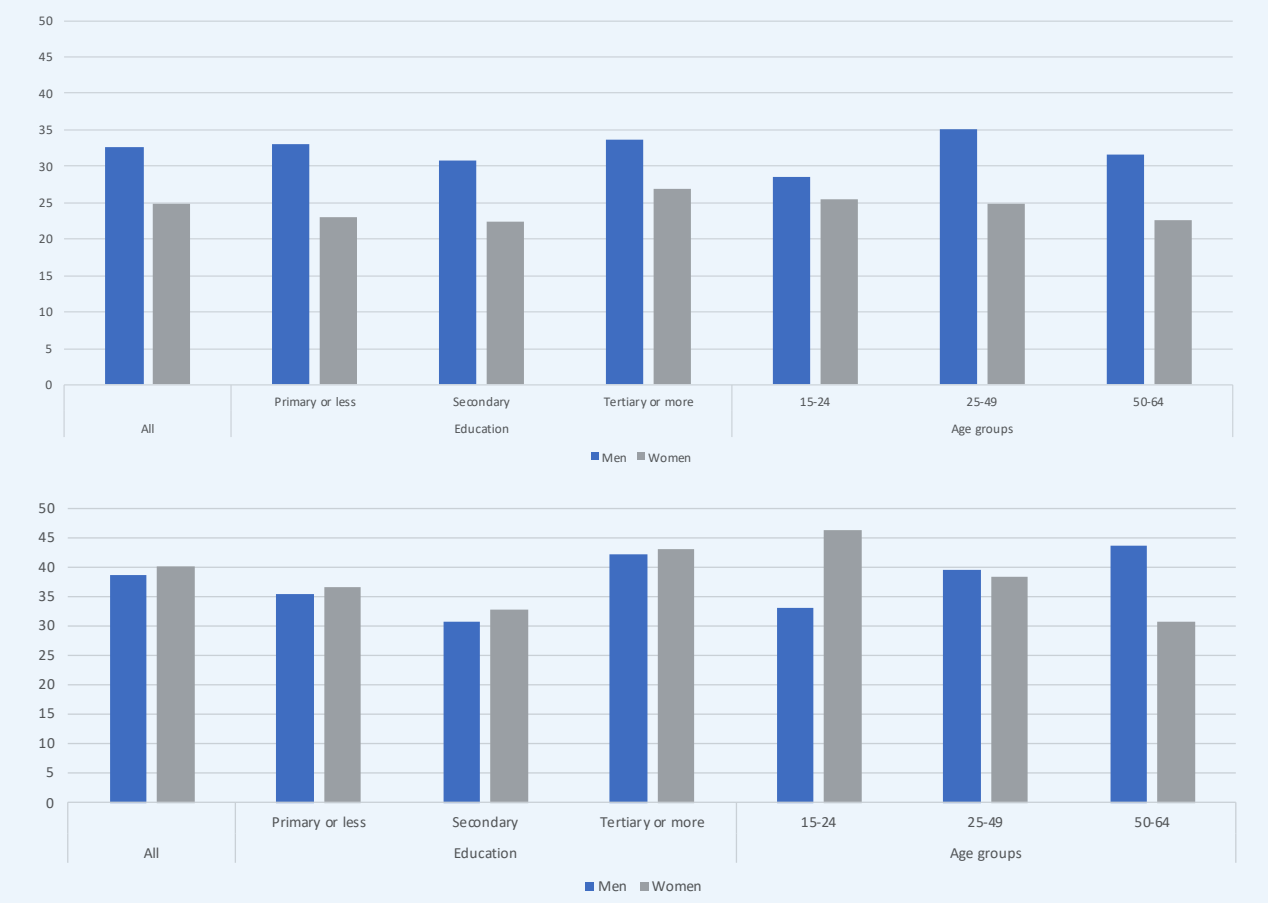



**Source:** *Authors' own calculations. Weights used accordingly.*

**Figure 8** shows that women work fewer hours in total employment in all age and educational level groups. However, women work more hours than men in wage employment in all educational level groups and in the age group 15-24 years. For total employment, the gap is widest among primary-educated individuals and individuals in the age group 25–49 years (**Figure 8, top panel**).

## Figure 8

**Hours worked by women and men weekly, by age and education, in total employment (top) and wage employment (bottom)**




**Source:** *Authors' own calculations. Weights used accordingly.*

In the remainder of this chapter, only hours worked in wage employment are considered, as hours could be matched with sector/occupation for wage employees only. **Table 8** shows that hours spent on paid work in each sector vary by gender. Women work shorter hours in most sectors, except construction (although the difference is minimal), wholesale and retail trade, real estate and households as employers. The difference is most stark in sectors that are male dominated, such as mining and quarrying, transportation, and public administration and defence. By occupation, interestingly, women work longer hours as craft workers, an occupation in which they are underrepresented, as well as in clerical work, where women are overrepresented. In all other occupations, women work shorter hours than men. In terms of formality status, women work shorter hours in both formal and informal jobs, although the gender hours gap is slightly wider in formal employment.

## Table 8

**Average hours worked per week and gender gaps in hours, by gender, sector, occupation and formality status**

| | Men | Women | Gender gap in hours |
|---|---|---|---|
| Sector | | | |
| Agriculture | 41.53 | 37.09 | –4.44 |
| Mining and quarrying | 48.05 | 31.48 | –16.57 |
| Manufacturing | 52.2 | 49.48 | –2.72 |
| Electricity | 48.35 | 42.59 | –5.76 |
| Water supply | 44.46 | 35.16 | –9.3 |
| Construction | 45.03 | 45.64 | 0.61 |
| Wholesale and retail trade | 49.7 | 52.17 | 2.47 |
| Transportation and storage | 55.23 | 45.95 | –9.28 |
| Accommodation and food service activities | 55.18 | 54.55 | –0.63 |
| Information and communication | 46.21 | 44.63 | –1.58 |
| Financial and insurance activities | 47.47 | 44.04 | –3.43 |
| Real estate activities | 49.85 | 53.33 | 3.48 |
| Professional, scientific and technical activities | 44.01 | 40.71 | –3.3 |
| Administrative and support service activities | 46.63 | 41.34 | –5.29 |
| Public administration and defence | 50.76 | 40.79 | –9.97 |
| Education | 36.74 | 35.1 | –1.64 |
| Human health and social work activities | 51.49 | 45.83 | –5.66 |
| Arts, entertainment and recreation | 46.81 | 46.12 | –0.69 |
| Other service activities | 48.95 | 46.21 | –2.74 |
| Activities of households as employers | 53.47 | 53.77 | 0.3 |
| Activities of extraterritorial organizations and bodies | 50.39 | 42.17 | –8.22 |
| Occupation | | | |
| Armed forces | 60.23 | 47.78 | –12.45 |
| Legislators, government officials, managers | 44.06 | 41.26 | –2.8 |
| Professionals | 41.95 | 41.88 | –0.07 |
| Technicians and associate professionals | 39.32 | 38.67 | –0.65 |
| Clerical support workers | 42.52 | 43.33 | 0.81 |
| Services and sales workers | 56.58 | 55.21 | –1.37 |
| Skilled agricultural, forestry and fish workers | 38.13 | 36.13 | –2 |
| Craft and related trades workers | 43.44 | 48.97 | 5.53 |
| Plant and machine operators and assemblers | 55.65 | 50.8 | –4.85 |
| Elementary occupations | 48.16 | 42.09 | –6.07 |
| Formality status | | | |
| Formal | 46.44 | 44.44 | –2 |
| Informal | 47.3 | 46.26 | –1.04 |

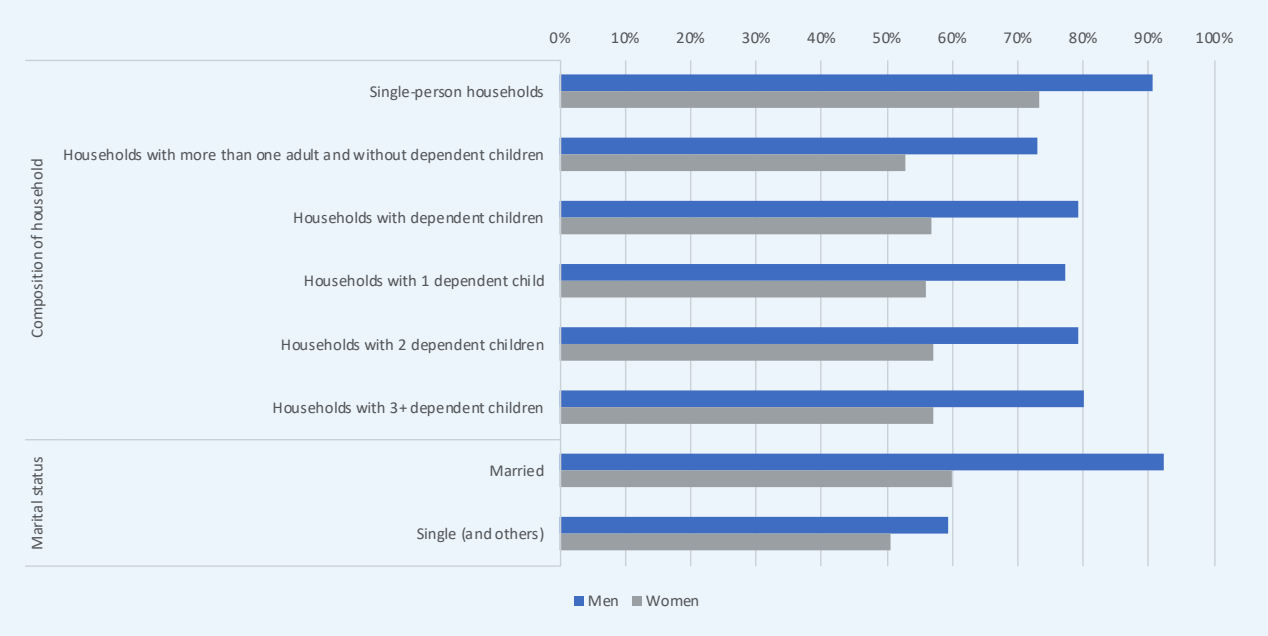
**Source:** *Authors' own calculations. Weights used accordingly.*

## 3.7 Gender inequality related to household structure and marital status

**Figure 9** presents the labour-market status for both women and men by household type. For all household types, employment rates are lower among women than among men. For single-person households, the gap is smallest, at 17.3 p.p. The gap increases in households with dependent children, and is largest among households with three or more children present in the household, at 23.2 p.p. This clearly indicates that the number of children present in the household affects the gap, as the gap increases with more children present, although not extensively. By marital status, the difference is stark: the gender employment gap among married individuals is 32.4 p.p., while the gap for single individuals is only 8.7 p.p.

### Figure 9

**Employment rates of women and men, by household type and marital status**




**Source:** *Authors' own calculations. Weights used accordingly*

These figures are broken down by age in Table 9. The disparity in employment rates between genders widens as age increases, reaching 12.8 p.p. for older adults in single-person households. The most significant gender employment gap is observed in households with three or more children, being 36.9 p.p. This trend may be linked to larger households, where older female adults are increasingly engaged in caring for grandchildren, significantly influencing their participation in the labour market. By marital status, the gender employment gap is notably larger among married individuals across all age groups than among those who are single. For instance, the smallest gap for single individuals is in the 25–49 years age group, at 8.2 p.p., compared with 31 p.p. for married individuals in the same age group.

**Table 9**

**Employment rates and gender employment gaps, by gender, household type, marital status and age group**

| | Aged 15–24 years | | | Aged 25–49 years | | | Aged 50–64 years | | |
|---|---|---|---|---|---|---|---|---|---|
| | Men (%) | Women (%) | Gender employment gap (p.p.) | Men (%) | Women (%) | Gender employment gap (p.p.) | Men (%) | Women (%) | Gender employment gap (p.p.) |
| Composition of household | | | | | | | | | |
| Single-person households | 93.5 | 86.5 | –7.0 | 93.0 | 83.2 | –9.8 | 64.1 | 51.3 | –12.8 |
| Households with more than one adult and without dependent children | 60.0 | 44.7 | –15.3 | 84.7 | 65.2 | –19.5 | 80.2 | 49.8 | –30.4 |
| Households with dependent children | 54.7 | 44.8 | –9.9 | 92.2 | 64.0 | –28.2 | 87.9 | 54.0 | –33.9 |
| Households with one dependent child | 56.8 | 45.0 | –11.8 | 90.0 | 66.5 | –23.5 | 87.9 | 53.9 | –34.0 |
| Households with two dependent children | 54.5 | 45.4 | –9.1 | 92.1 | 63.7 | –28.4 | 89.9 | 58.0 | –31.9 |
| Households with three or more dependent children | 53.5 | 44.4 | –9.1 | 93.2 | 63.1 | –30.1 | 86.9 | 50.6 | –36.3 |
| Marital status | | | | | | | | | |
| Married | 89.3 | 53.7 | –35.6 | 93.8 | 62.8 | –31.0 | 87.4 | 52.2 | –35.2 |
| Single (and others) | 52.9 | 40.5 | –12.4 | 79.6 | 71.4 | –8.2 | 69.1 | 52.7 | –16.4 |
| | | | | | | | | | |
| Total | 56.4 | 45.3 | –11.1 | 91.3 | 64.4 | –26.9 | 86.1 | 52.4 | –33.7 |

**Source**: *Authors' own calculations. Weights used accordingly.*

A correlation between educational level and the gender employment gap is clearly evident in single-person households, as shown in Table 10. Generally, the gap diminishes for the higher educational levels. Across all educational level groups, the gap fluctuates minimally with the number of children in the household. However, the most notable contrast is observed in households with a secondary-level education and three or more children, where the gap reaches 27.7 p.p., compared with 21.3 p.p. for households with two children and the same educational background. When considering marital status, the disparity between married and single individuals is pronounced across all educational levels. Notably, the widest gap is observed among married individuals with a secondary-level education, at 35.5 p.p., compared with their single counterparts with the same level of educational attainment, at 9.5 p.p. The gap is smaller for both married and single individuals with a tertiary-level education.

**Table 10**

**Employment rates and gender employment gaps, by gender, household type, marital status and educational level**

| | Primary or less | | | Secondary | | | Tertiary or more | | |
|---|---|---|---|---|---|---|---|---|---|
| | Men (%) | Women (%) | Gender employment gap (p.p.) | Men (%) | Women (%) | Gender employment gap (p.p.) | Men (%) | Women (%) | Gender employment gap (p.p.) |
| Composition of household | | | | | | | | | |
| Single-person households | 87.5 | 67.0 | –20.5 | 94.2 | 87.0 | –7.2 | 88.9 | 89.5 | 0.6 |
| Households with more than one adult and without dependent children | 76.8 | 54.4 | –22.4 | 64.6 | 48.7 | –15.9 | 75.3 | 49.4 | –25.9 |
| Households with dependent children | 81.3 | 58.4 | –22.9 | 69.2 | 46.0 | –23.2 | 79.8 | 58.2 | –21.6 |
| Households with one dependent child | 80.2 | 58.1 | –22.1 | 67.7 | 46.9 | –20.8 | 76.9 | 56.1 | –20.8 |
| Households with two dependent children | 80.9 | 58.1 | –22.8 | 72.2 | 50.9 | –21.3 | 77.6 | 57.1 | –20.5 |
| Households with three or more dependent children | 81.9 | 58.6 | –23.3 | 68.4 | 40.7 | –27.7 | 84.2 | 61.3 | –22.9 |
| Marital status | | | | | | | | | |
| Married | 92.2 | 60.1 | –32.1 | 92.3 | 56.8 | –35.5 | 93.9 | 64.4 | –29.5 |
| Single (and others) | 62.6 | 53.6 | –9.0 | 50.9 | 41.4 | –9.5 | 61.4 | 53.5 | –7.9 |
| | | | | | | | | | |
| Total | 80.8 | 57.9 | –22.9 | 69.6 | 48.2 | –21.4 | 79.6 | 58.6 | –21.0 |

**Source:** *Authors' own calculations. Weights used accordingly.*

## 3.8 Segregation by gender

**Table 11** presents Duncan Segregation Index values. Overall, the occupational segregation value is 0.21 and the sectoral segregation value is 0.23. This further indicates horizontal gender segregation in Ethiopia of low to moderate magnitude. Specifically, approximately a quarter to a fifth of women and men employees would have to change positions across occupational categories and sectors for distribution to become identical.

When observing segregation based on educational level, the data indicate that the highest level of segregation is observed among individuals with a tertiary-level education. In this group, approximately 18 per cent of both women and men would need to exchange roles across occupations for an equal distribution, and 23 per cent would need to do the same across sectors.

**Table 11**

**Horizontal gender segregation index values, by occupation and sector**

| | All | Educational level | | |
|---|---|---|---|---|
| | | Primary or less | Secondary | Tertiary or above |
| Occupation | 0.210 | 0.221 | 0.183 | 0.300 |
| Sector | 0.228 | 0.240 | 0.228 | 0.280 |

**Source:** *Authors' own calculations. Weights used accordingly.*

**Table 12** shows the composition of occupational group 1, which includes legislators and managerial workers and is considered the highest-skill occupational group as per the ISCO-08. **Table A.1** shows that women are underrepresented in the highest-skill occupations, i.e. as legislators, senior officials and managers. In this group, women are underrepresented in all four occupational categories, to varying degrees. On the other hand, women earn the same as men in these occupations at the very top of the occupational ladder, although women earn considerably less than men in the professionals occupational category **(Table 4). Figure 6** presents evidence to suggest that the adjusted gender pay gap increases along the wage ladder to 16.5 per cent for the top 10 per cent of earners and then soars to 28.8 per cent for the top 1 per cent of earners, suggesting a glass ceiling effect. Overall, the underrepresentation of women and large gender pay gap in the highest-skill occupational group and the evidence of a glass ceiling among the top percentile of earners provide evidence for a significant degree of vertical segregation in Ethiopia.

**Table 12**

**Proportion of employment in the highest-skill occupational group, by gender**

| | Men (%) | Women (%) |
|---|---|---|
| Legislators and senior officials | 82.7 | 17.3 |
| Corporate managers | 62.5 | 37.5 |
| Production and specialized services managers | 74.3 | 25.7 |
| Hospitality, retail and other services managers | 87.4 | 12.6 |

**Source:** *Authors' own calculations. Weights used accordingly.*

# 4 CONCLUSION AND POLICY RECOMMENDATIONS

# 4 CONCLUSION AND POLICY RECOMMENDATIONS

The objective of this study was to calculate and shed light on the gender pay gap and other labour-market inequalities in Ethiopia. Strikingly, there is a 22.1 p.p. employment gap between women and men, with women facing lower employment rates, particularly those with lower levels of education and older adults. Among the employed population, women consistently work fewer hours than men. The raw gender pay gaps in Ethiopia are 30.3 per cent at the monthly level and 30.3 per cent at the hourly level, highlighting differences in working hours. Unadjusted gender pay gaps are seen across all educational levels, but are widest among primary-educated individuals and narrowest among secondary-educated individuals. In terms of marital status, the gender pay gap is notably smaller among married individuals than among single individuals. After accounting for individual and labour-market characteristics, the gender pay gap declines, to give an adjusted gender pay gap of 13.9 per cent.

A significant portion of the unadjusted gender pay gap (14.2 p.p.) is not explained by personal and labour-market characteristic, indicating that unmeasured factors such as differences in motivation, bargaining power, social networks and labour-market discrimination affect the gender pay gap in Ethiopia. Occupational and sectoral horizontal segregation levels are low to moderate, and about a quarter to a fifth of women and men employees would have to change positions across occupational categories and sectors for distribution to become identical. Notably, occupational and sector segregation is most pronounced among tertiary-educated individuals. The gender pay gap varies across different wage deciles, revealing a pronounced glass ceiling effect in the highest percentile. Women are also underrepresented in high-skill occupational groups, particularly in leadership and managerial positions, indicating the presence of vertical segregation in Ethiopia's labour market.

Closing the gender pay gap and addressing other labour-market inequalities is important for improving women's socioeconomic position and achieving social justice for more than half of the world's population. However, as this study highlights, the gender pay gap and other labour-market inequalities are complex issues influenced by various factors, such as occupational segregation, differences in education and care responsibilities, discrimination and societal norms. Addressing these issues, therefore, requires a comprehensive approach that involves multiple stakeholders, including governments, employers, civil society organizations and individuals.

The Ethiopian Government could strengthen existing legislation to ensure that women and men are entitled to equal remuneration for work of equal value. This includes effectively enforcing measures such as transparency in the recruitment process, for example by disallowing the collection of personal information (e.g. marital status) while hiring, prohibiting pay discrimination based on gender and promoting pay equity by making pay scales publicly available in the public and private sectors. Employers could also promote transparency in pay structures within organizations, ensuring that salary ranges, pay scales and benefits are clearly defined and communicated. Accessible and responsive complaint mechanisms could

also be put in place, so that violations of the law or company policies and any discrimination can be reported.

Efficient social protection policies, such as minimum wage regulations and social security benefits, can prove impactful when tailored to address the distinct needs and vulnerabilities experienced by women in the labour market. Although Ethiopia has a national social protection policy in place, the country currently lacks legislation on a minimum wage, although efforts are under way to establish this. However, the challenges lie in the enforcement of and compliance with such measures. Concerns persist regarding the potential exacerbation of unemployment, particularly among the young, as a consequence of minimum wage laws, and this remains an active area of research. More studies are needed in the Ethiopian context to understand the effects of minimum wage legislation. Nonetheless, it is crucial to recognize that policies fostering employment formalization, supporting workers' unions and implementing social protection programmes are equally important complements to minimum wage legislation.

Substantial sectoral and occupational segregation, as observed in Ethiopia, can be challenging to tackle directly. An economy-wide approach needs to be taken to encourage the breaking down of gender segregation by promoting women's participation in non-traditional fields and sectors, where they are underrepresented. This can be done through targeted recruitment, training programmes, addressing discriminatory practices and making workplaces safer for women in traditionally "masculine" sectors. Governments and employers can also support the reintegration of women into the labour force after periods of absence, for example after maternity leave. Reintegration policies may include training programmes, upskilling opportunities and support for continuing education, enabling women to update their skills and stay competitive in the job market. This would reduce occupational segregation, wherein women are underrepresented in high-paying and competitive jobs, and minimize the negative impact of career breaks.

For an optimal result, these changes should go hand in hand with policies to recognize, redistribute and reduce women's unpaid care work responsibilities. Research has shown that unpaid care work affects women's labour-market inputs not only in terms of time spent in paid employment but also in terms of how women enter and remain in paid work. It affects their occupation selection, the quality of their jobs and their job-market attachment.[22] Policies that support work–life balance, such as flexible working arrangements, setting an upper limit to the number of working hours in the week, parental leave (where both parents are encouraged to take time off), and affordable and good-quality childcare, care for people with disabilities and elderly care, can encourage women to fully participate in the labour market. This would help to reduce the gender pay gap while also ensuring that household and caregiving responsibilities can be redistributed more equitably between men and women.

Ultimately, it is important to promote societal norms that encourage gender balance. Societal norms often assign specific gender roles and expectations, leading to the perpetuation of gender inequalities in the labour market. Thus, they affect how women and households make decisions regarding education, occupations, sectors and working hours. Societal norms can also contribute to discriminatory practices and unconscious biases that affect hiring, promotion and pay decisions. By shifting societal norms and challenging discriminatory beliefs, labour markets can become more inclusive, valuing skills and contributions over gender stereotypes.

In conclusion, achieving gender pay equality and addressing labour-market inequalities require a multifaceted approach involving various stakeholders across the economy. Better data on the pay distribution, collected at frequent intervals, would enable a better understanding of the gender pay gap in the country and inform work to advocate for policies to address it. Public policy efforts to tackle the "explained" part of the gender pay gap could prioritize enhancing educational opportunities for women and girls, promoting women's participation in high-paying and traditionally "masculine" occupations and sectors, supporting women's labour force reintegration after career breaks and providing a robust social protection system. Tackling the "unexplained" part of the gender pay gap requires regulating the private sector, to ensure that equal compensation and equal opportunities are provided to women, and introducing interventions to break down gendered cultural norms. Policies to recognize, reduce and redistribute women's and girls' unpaid care work responsibilities would complement all policy efforts to reduce the gender pay gap. In this way, Ethiopia can unlock the full potential of its workforce, fostering socioeconomic advancement, innovation and sustainable economic growth.

# ANNEX

**Table A.1**

**Women's and men's shares in wage employment, by sector, occupation and formality status**

| | Men (%) | Women (%) |
|---|---|---|
| Sector | | |
| Agriculture | 7.3 | 5.3 |
| Mining and quarrying | 1.3 | 0.2 |
| Manufacturing | 7.6 | 7.3 |
| Electricity | 0.8 | 0.1 |
| Water supply | 1.3 | 1.9 |
| Construction | 11.9 | 3.1 |
| Wholesale and retail trade | 2.1 | 2.3 |
| Transportation and storage | 6.6 | 0.9 |
| Accommodation and food service activities | 0.9 | 3.8 |
| Information and communication | 1.4 | 1.6 |
| Financial and insurance activities | 4.9 | 5.7 |
| Real estate activities | 0.1 | 0.1 |
| Professional, scientific and technical activities | 3.3 | 2.9 |
| Administrative and support service activities | 5.2 | 4.6 |
| Public administration and defence | 7.8 | 5.6 |
| Education | 17.6 | 18.7 |
| Human health and social work activities | 3.7 | 9.5 |
| Arts, entertainment and recreation | 0.4 | 0.6 |
| Other service activities | 7.9 | 6.4 |
| Activities of households as employers | 6.2 | 18.8 |
| Activities of extraterritorial organizations and bodies | 1.7 | 0.8 |
| Occupation | | |
| Armed forces | 1.8 | 1.0 |
| Managers | 3.4 | 1.5 |
| Professionals | 24.7 | 25.6 |
| Technicians and associate professionals | 2.5 | 2.4 |
| Clerical support workers | 1.2 | 5.1 |
| Services and sales workers | 15.8 | 18.4 |
| Skilled agricultural, forestry and fish workers | 9.3 | 9.8 |
| Craft and related trades workers | 17.8 | 4.7 |
| Plant and machine operators and assemblers | 1.2 | 0.4 |
| Elementary occupations | 22.3 | 31.1 |
| Elementary occupations | | |
| Formal | 83.3 | 90.8 |
| Informal | 16.7 | 9.2 |

**Source:** *Authors' own calculations.*

## Table A.2

**Adjusted gender pay gap (regression estimates on log hourly wages)**

| | Raw/ Unadjusted GPG | Adjusted GPG | | | | | |
|---|---|---|---|---|---|---|---|
| | | Personal characteristics only | Personal + marriage | Personal + sector | Personal + occupation | Personal + sector + occupation | All |
| *Dependent variable: log hourly wages* | | | | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Gender (1 = female) | –0.302*** | –0.221*** | –0.202*** | –0.179*** | –0.185*** | –0.133*** | –0.139*** |
| | (0.028) | (0.024) | (0.024) | (0.024) | (0.023) | (0.023) | (0.023) |
| Secondary | | 1.024*** | 1.015*** | 0.814*** | 0.449*** | 0.417*** | 0.407*** |
| | | (0.027) | (0.027) | (0.030) | (0.032) | (0.031) | (0.031) |
| Tertiary or above | | 1.153*** | 1.138*** | 0.933*** | 0.537*** | 0.509*** | 0.499*** |
| | | (0.043) | (0.043) | (0.046) | (0.044) | (0.044) | (0.044) |
| Age | | 0.0872*** | 0.0719*** | 0.0651*** | 0.0465*** | 0.0439*** | 0.0433*** |
| | | (0.007) | (0.008) | (0.007) | (0.007) | (0.007) | (0.007) |
| Age squared | | –0.00100*** | –0.000838*** | –0.000740*** | –0.000513*** | –0.000470*** | –0.000463*** |
| | | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| Marital status (1 = married) | | | 0.193*** | 0.126*** | 0.0925*** | 0.0755*** | 0.0770*** |
| | | | (0.026) | (0.024) | (0.023) | (0.023) | (0.022) |
| Mining and quarrying | | | | 0.021 | | 0.061 | 0.052 |
| | | | | (0.050) | | (0.047) | (0.047) |
| Manufacturing | | | | 0.561*** | | 0.358*** | 0.350*** |
| | | | | (0.125) | | (0.113) | (0.113) |
| Production and distribution of electricity | | | | 0.094 | | 0.126 | 0.109 |
| | | | | (0.101) | | (0.092) | (0.092) |
| Construction | | | | 0.416*** | | 0.468*** | 0.475*** |
| | | | | (0.045) | | (0.042) | (0.042) |
| Wholesale and retail trade | | | | (0.005) | | 0.261*** | 0.291*** |
| | | | | (0.075) | | (0.072) | (0.072) |
| Hotels and restaurants | | | | 0.209*** | | 0.307*** | 0.333*** |
| | | | | (0.050) | | (0.050) | (0.050) |

| | Raw/ Unadjusted GPG | Adjusted GPG | | | | | |
|---|---|---|---|---|---|---|---|
| | | Personal characteristics only | Personal + marriage | Personal + sector | Personal + occupation | Personal + sector + occupation | All |
| Transport and communication | | | | –0.216***<br>(0.052) | | (0.040)<br>(0.051) | (0.031)<br>(0.051) |
| Financial intermediation | | | | 0.465***<br>(0.068) | | 0.215***<br>(0.060) | 0.208***<br>(0.060) |
| Public administration | | | | 0.495**<br>(0.244) | | 0.440*<br>(0.235) | 0.442*<br>(0.237) |
| Education | | | | 0.515***<br>(0.062) | | 0.0931*<br>(0.055) | 0.0896*<br>(0.054) |
| Health and social work | | | | 0.313***<br>(0.045) | | 0.0825**<br>(0.040) | 0.0736*<br>(0.040) |
| Other community, social and personal services | | | | 0.198***<br>(0.038) | | 0.160***<br>(0.037) | 0.145***<br>(0.037) |
| Private households employing domestic services | | | | 0.630***<br>(0.036) | | 0.255***<br>(0.035) | 0.247***<br>(0.035) |
| Extraterritorial organizations and bodies | | | | 0.384***<br>(0.038) | | 0.0615*<br>(0.035) | 0.054<br>(0.035) |
| Professionals | | | | | 0.240***<br>(0.071) | 0.198***<br>(0.069) | 0.198***<br>(0.069) |
| Technicians and associate professionals | | | | | (0.074)<br>(0.073) | –0.140*<br>(0.072) | –0.138*<br>(0.071) |
| Clerical support workers | | | | | –0.365***<br>(0.079) | –0.396***<br>(0.077) | –0.393***<br>(0.077) |
| Services and sales workers | | | | | –1.074***<br>(0.077) | –1.069***<br>(0.075) | –1.069***<br>(0.075) |
| Skilled agricultural, forestry and fishery workers | | | | | –0.601***<br>(0.121) | –0.551***<br>(0.118) | –0.541***<br>(0.118) |
| Craft and related trades workers | | | | | • –0.639***<br>• (0.114) | –0.739***<br>(0.108) | –0.704***<br>(0.105) |
| Plant and machine operators and assemblers | | | | | –0.551***<br>(0.077) | –0.613***<br>(0.078) | –0.602***<br>(0.078) |

| | Raw/ Unadjusted GPG | Adjusted GPG | | | | | |
|---|---|---|---|---|---|---|---|
| | | Personal characteristics only | Personal + marriage | Personal + sector | Personal + occupation | Personal + sector + occupation | All |
| Elementary occupations | | | | | –0.875*** | –0.925*** | –0.910*** |
| | | | | | (0.075) | (0.074) | (0.074) |
| Armed forces | | | | | –0.639*** | –0.662*** | –0.660*** |
| | | | | | (0.091) | (0.091) | (0.090) |
| Informal worker | | | | | | | –0.125*** |
| | | | | | | | (0.038) |
| Constant | • 2.843*** | • 0.481*** | • 0.673*** | 0.705*** | 2.013*** | 1.963*** | 1.994*** |
| | • (0.017) | • (0.126) | • (0.129) | (0.126) | (0.140) | (0.138) | (0.139) |
| | | | | | | | |
| Observations | • 20,599 | • 20,599 | • 20,599 | 20,599 | 20,599 | 20,599 | 20,599 |
| R-squared | • 0.02 | • 0.322 | • 0.329 | 0.377 | 0.461 | 0.48 | 0.481 |

**Source:** *Authors' own calculations. Weights used accordingly.*

**Note:** **, ** and *** represent statistical significance at the 10%, 5% and 1% levels, respectively. Standard errors given in parentheses. Results robust to heteroskedasticity. GPG, gender pay gap*

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