

### WHY WOMEN EARN LESS

GENDER PAY GAP AND LABOUR-MARKET INEQUALITIES IN RWANDA





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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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# 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.<sup>1</sup> 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 decisionmaking power both in the household (e.g. spending decisions) and in society (e.g. managerial decisions), and experience of violence. Rwanda is a landlocked low-income country with a population of 13.8 million (as at 2022).<sup>2</sup> The country has made progress towards gender equality in terms of women's economic and political participation, formal employment and education attainment in the country. For instance, the Country Policy and Institutional Assessment<sup>3</sup> gender equality rating for Rwanda increased from 3.5 in 2007 to 4.5 in 2022,4 and, as at February 2021, 61.3 per cent of seats in parliament were held by women.<sup>5</sup>Yet, the gender pay gap is still a pervasive labour-market feature in Rwanda.

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 among women. Rwanda successfully reduced poverty rates from 66.1 per cent in 2005 to 52 per cent in 2016, based on the US\$2.15 per day poverty line. <sup>6</sup> Yet, poverty rates are very high in the country and addressing the gender pay gap can contribute to poverty reduction. 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 from 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.<sup>7</sup>

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.<sup>8</sup> 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 contributing 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 Rwanda. This is a 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.





### 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:<sup>9</sup>

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

(1)

$$ln(y_t) = \alpha + \beta_{i}gender_{i} + \sum \gamma_{i} * X'_{t} + \varepsilon_{i}$$

where  $ln(y_t)$  is the log of the hourly wage of person *i*; gender, 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 labourmarket characteristics (including education, age and its square, experience, tenure, occupation and sector).<sup>11</sup> The coefficient  $\mathcal{B}_t$  measures the **adjusted** gender pay gap. If the vector of explanatory variables  $X'_t$  is not included, then  $\mathcal{B}_t$  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:

$$\begin{aligned} \ln(y_t) &= \alpha + \beta_1 \text{gender}_i + \beta_2 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_i \end{aligned} \tag{2} \\ \ln(y_t) &= \alpha + \beta_1 \text{gender}_i + \beta_2 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_i \end{aligned} \tag{4} \\ \ln(y_t) &= \alpha + \beta_1 \text{gender}_i + \beta_2 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_i \end{aligned} \tag{5} \\ \ln(y_t) &= \alpha + \beta_1 \text{gender}_i + \beta_2 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_6 \text{sectors}_i + \xi_i \end{aligned} \tag{6} \\ \ln(y_t) &= \alpha + \beta_1 \text{gender}_i + \beta_2 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_6 \text{occupations}_i + \xi_i \end{aligned} \tag{6} \\ \ln(y_t) &= \alpha + \beta_1 \text{gender}_i + \beta_2 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_6 \text{occupations}_i + \xi_i \end{aligned} \tag{6} \\ \ln(y_t) &= \alpha + \beta_1 \text{gender}_i + \beta_2 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_6 \text{occupations}_i + \xi_i \end{aligned} \tag{6} \\ \ln(y_t) &= \alpha + \beta_1 \text{gender}_i + \beta_2 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_6 \text{sectors}_i + \beta_2 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_6 \text{sectors}_i + \beta_2 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_6 \text{sectors}_i + \beta_5 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_6 \text{sectors}_i + \beta_5 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_6 \text{sectors}_i + \beta_5 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_5 \text{marital\_status}_i + \xi_6 \text{sectors}_i + \beta_5 \text{age}_i + \beta_3 \text{age}_i + \beta_3 \text{age}_s \text{quares}_i + \beta_4 \text{education}_i + \beta_6 \text{marital\_status}_i + \xi_6 \text{sectors}_i + \beta_5 \text{age}_i + \beta_6 \text{sectors}_i + \beta_6 \text{sectors}_$$

 $ln(y_t) = \alpha + \beta_1 gender_i + \beta_2 age_i + \beta_3 age_squares_i + \beta_4 education_i + \beta_5 marital_status_i + \beta_5 sectors_i + \beta_5 occupations_i + \beta_8 informal_job_i + \xi_i$ 

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.<sup>12</sup> 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.<sup>13</sup> 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.<sup>14</sup> 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,<sup>15</sup> 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<sup>17</sup> and Blinder.<sup>18</sup> 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.<sup>19</sup>

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 generally indicate a disadvantageous position for women.

Horizontal gender segregation is analysed using the Duncan Segregation Index.<sup>20</sup> 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.<sup>21</sup> 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.

The basis for this analysis is the Labour Force Survey 2022. The Survey is comprised of 16,572 households and 70,424 individuals, of whom 41,263 belong to the 15-64 age span with whom the analysis of employment is conducted. A person is identified as employed or not by using the following conditions: if the person did any work for a wage, salary, commission, or any payment in kind, excluding temporary in the past 7 days; if the person ran any kind of business in the past 7 days; if the person helped unpaid in a business owned by the household in the past 7 days; and if a person had a job, business, or other economic or agricultural activity that s/he would return to within the next 3 months. Hence, 13,765 employed individuals have been labelled as wage employees, which is the group that is retained for wage analysis. To arrive at the hourly wages, the reported wage is aggregated at the weekly level with the average usual hours per week the individual worked. Removing the individuals who reported zero wages and/or zero hours, the final sample for the analysis is comprised of 12,918 individuals.





## RESULTS

### 3 RESULTS

#### 3.1 Employment structure

Based on the available identifiers in the Labour Force Survey 2022, the employment rate in Rwanda is 52.9 per cent for individuals aged 15–64 years and 50.8 per cent for individuals aged 15 years or over. This is close to the official employment rate of the country (for individuals aged 15 years or over) of 47.8 per cent for 2022 (World Development Indicators; International Labour Organization-modelled estimate). **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 11.1 p.p. Rwandan women face consistently lower employment rates than men for the key adult age group, 25–49 years. The gap is similar across all educational levels.

#### Table 1

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

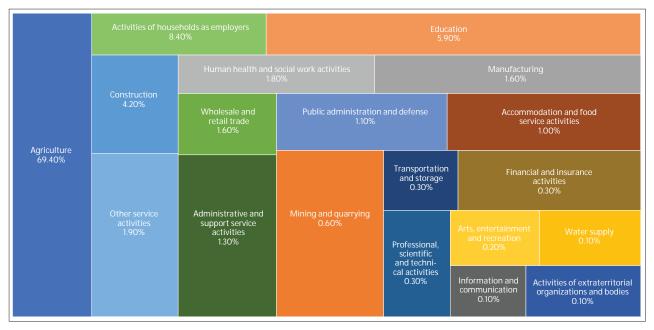
	Women (%)	Men (%)	Gender employment gap (p.p.)
Employment rate	58.7 47.6 –11.1		-11.1
	Age group	(years)	
15–24	33.5	28.5	-5.0
25–49	77.2	60.3	-16.9
50–64	64.2	49.9	-14.3
	Education	al level	
Primary or less	64.7	53.7	-11.0
Secondary	42.2	32.4	-9.8
Tertiary or more	65.8	55.0	-10.8

Source: Authors' own calculations.

**Figures 1** and **2** present women's and men's employment in each sector as a share of women's and men's total employment, respectively. The majority of the labour force is employed by the agriculture sector. Other than agriculture, women dominate most care sectors – education and services for households, mostly as domestic workers. However, after agriculture, men are concentrated in construction, education and transportation. **Figures 3** and **4** present women's and men's shares in employment by occupation. Elementary occupations make up the majority of jobs for women (86.7 per cent) and men (72.3 per cent) in Rwanda. Professionals make up the next largest occupational category for both genders. About 90.7 per cent of women and 88.3 per cent of men work in the informal sector **(Table A.1).** 

#### Figure 1

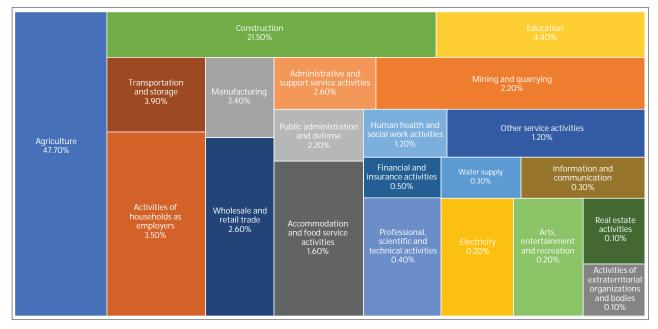
Women's share of wage employment by sector, as a percentage of women's total employment



Source: Authors' own calculations.

#### Figure 2

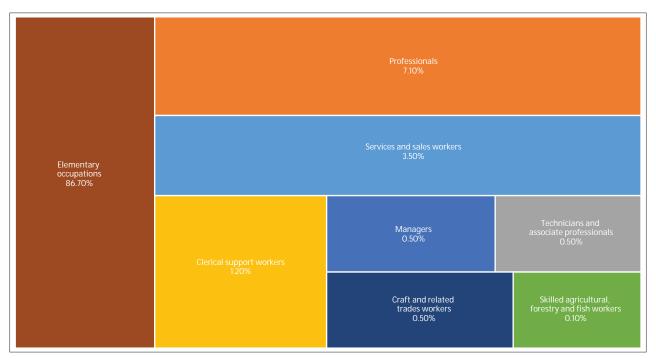
Men's share of employment by sector, as a percentage of men's total employment



Source: Authors' own calculations.

#### Figure 3

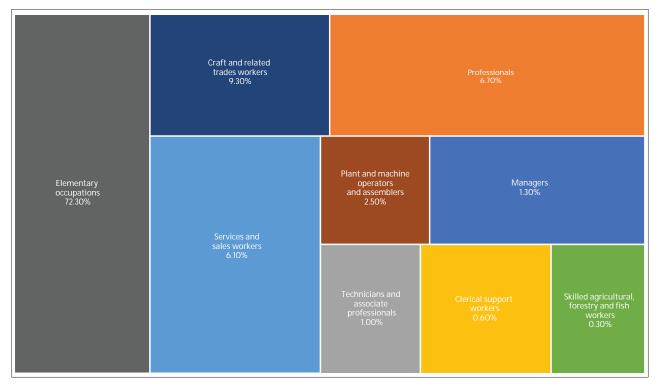
Women's share of employment by occupation, as a percentage of women's total employment



Source: Authors' own calculations.

#### Figure 4

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

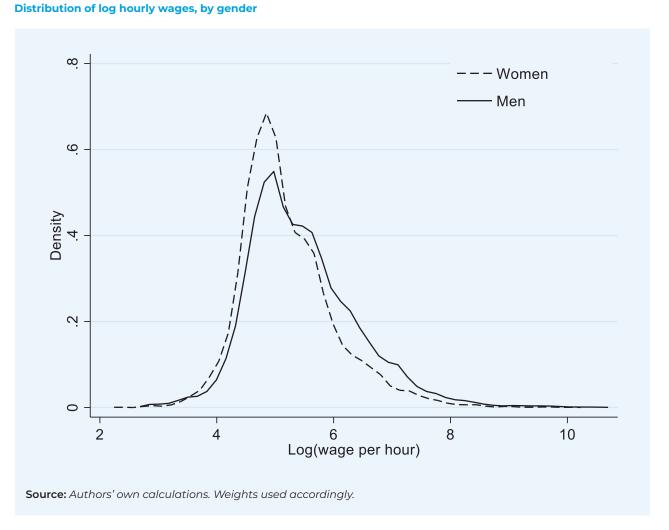


Source: Authors' own calculations.

#### 3.2 Raw gender pay gap

**Figure 5** shows the distribution of log hourly wages of women and men. The dashed line, representing women, is to the left of the solid line, representing men, for most of the curve, suggesting that women are more likely to earn lower wage levels than men. Moreover, the wage line for women has a peak that is higher and further to the left than to the wage line for men, while the gap at the right of the distribution curve – among the higher wage levels – is large.

#### Figure 5



The raw gender pay gaps in Rwanda are 38.5 per cent, when considered at the monthly level, and 26.2 per cent, when considered at the hourly level **(Table 2).** This suggests that, on average, women work shorter hours than men in Rwanda. From this point onwards, only the hourly gender pay gap is considered. The gap exists for all levels of education attainment, although it is largest for the secondary educational level (38.7 per cent) and is smallest for the tertiary educational level (10.6 per cent). By marital status, the gap is smaller for single individuals, at 19.2 per cent, although it is not substantially different from the gap for married individuals, at 22.9 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	8.937	8.552	-38.5
Log hourly wages	5.461	5.199	-26.2
Log wages per hou	ır, by educ	cational level	
Primary or less	5.243	5.053	-19.0
Secondary	5.708	5.321	-38.7
Tertiary or above	7.091	6.985	-10.6
Log wages per ho	bur, by ma	rital status	
Single	5.238	5.046	-19.2
Married	5.574	5.345	-22.9

Source: Authors' own calculations. Weights used accordingly.

The gender pay gap varies by sector, and is particularly notable for sectors where women dominate, as shown in **Table 3.** For example, women earn 28.4 per cent more than men in education and 35 per cent more in construction. Interestingly, women's and men's wages in the sectors agriculture and households as employers, which are women-dominated sectors in Rwanda, are almost balanced. In sectors where men dominate, the gap is generally negative, e.g. 35 per cent in construction, 19.1 per cent in manufacturing and 13.9 per cent in transport.

#### Table 3

Log wages and raw gender pay gaps, by sector

Conton	Log wages	per hour	Condex nov son (0/)
Sector	Men	Women	Gender pay gap (%)
All	5.461	5.199	-26.2
Agriculture	5.064	5.083	1.9
Mining and quarrying	5.364	5.098	-26.6
Manufacturing	5.554	5.363	-19.1
Electricity	7.202	7.494	29.2
Water supply	6.753	6.467	-28.6
Construction	5.882	5.532	-35.0
Wholesale and retail trade	5.8	5.346	-45.4
Transportation and storage	5.843	5.704	-13.9
Accommodation and food service activities	5.757	5.425	-33.2

Contor	Log wages	per hour	
Sector	Men	Women	Gender pay gap (%)
Information and communication	7.261	7.037	-22.4
Financial and insurance activities	7.254	6.834	-42.0
Real estate activities	6.036	6.645	60.9
Professional, scientific and technical activities	7.543	6.662	-88.1
Administrative and support service activities	5.337	5.649	31.2
Public administration and defence	6.572	6.904	33.2
Education	6.321	6.037	-28.4
Human health and social work activities	6.673	6.818	14.5
Arts, entertainment and recreation	6.751	6.133	-61.8
Other service activities	5.465	5.853	38.8
Activities of households as employers	4.366	4.353	-1.3
Activities of extraterritorial organizations and bodies	8.307	6.216	-209.1

Source: Authors' own calculations. Weights used accordingly.

Likewise, **Table 4** presents the raw gender pay gaps by occupation. The gap is –12.4 per cent for elementary occupations, where most wage employees in Rwanda are nested. For other occupations, the picture is mixed. Men earn more than women as managers by 4.9 per cent, though the opposite holds for professionals and technical professionals, the other two high-skill occupations.

#### Table 4

Log wages and raw gender pay gaps, by occupation

Occuration	Log wag	ge per hour	Condex por con (0/)
Occupation	Men	Women	Gender pay gap (%)
All	5.461	5.199	-26.2
Legislators, government officials and managers	7.375	7.326	-4.9
Professionals	6.694	6.393	-30.1
Technicians and associate professionals	6.953	6.857	-9.6
Clerical support workers	6.673	6.517	-15.6
Services and sales workers	5.359	5.517	15.8
Skilled agricultural, forestry and fishery workers	5.257	5.858	60.1
Craft and related trades workers	6.152	5.761	-39.1
Plant and machine operators and assemblers	6.428	8.361	193.3
Elementary occupations	5.17	5.046	-12.4

Source: Authors' own calculations. Weights used accordingly.

**Table 5** presents the raw gender pay gaps by formality status of wage employment and shows that women in informal employment

face a deeper gender pay gap than those in formal employment.

#### Table 5

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

	Log wag		
	Men	Women	Gender pay gap (%)
All	5.461	5.199	-26.2
Formal	6.514	6.33	-18.4
Informal	5.319	5.074	-24.5

Source: Authors' own calculations. Weights used accordingly.

#### 3.3 Adjusted gender pay gap

The adjusted gender pay gap in Rwanda is statistically insignificant at the 5 per cent level **(Table 6).** Thus, observable individual characteristics and job characteristics completely explain the raw gender pay gap. The rest of the coefficients are analysed group by group. Row (2) adds only personal characteristics and as shown in **Table A.2**, wages grow with age, though concavely (turning negative at about 46 years of age), while education offers positive returns. A secondary educational level brings higher wages than only a primary educational level, by about 46.6 per cent, while a tertiary educational level brings higher wages than a primary educational level, by 179.5 per cent. Personal characteristics explain the gender pay gap to a limited extent, since the raw gap reduces from 26.2 per cent to 21.7 per cent with their addition. Row (3) adds marital status and shows that this addition only explains a very small part of the pay gap.

Row (4) adds sectors and with their addition the adjusted gap vanishes, suggesting that sectors, or their interaction with educational level, explain most of the gender pay gap in Rwanda. This suggests a high level of sectoral segregation. Almost all sectors pay

higher wages than agriculture (the reference category), with the exception of households as employers, which is women dominated and pays lower wages than agriculture (Table A.2). The addition of occupations only (row (5)) also reduces the adjusted gap to 11.1 per cent, thus not as much as the addition of sectors. The addition of sectors or occupations reduces the coefficient size for personal characteristics, which further provides evidence for sectoral and occupational segregation by educational levels (Table A.2). When all personal characteristics, sectors and occupations are put together (row (6)), as well as when informality status in wage employment is added (row (7)), the gap becomes zero.

#### Table 6

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

Row No.	Particular		Coefficient	Standard error
(1)	Raw/ Unad	justed GPG	-0.262***	-0.018
(2)		Personal characteristics only	-0.217***	0.015
(3)		Personal + marriage	-0.202***	0.015
(4)		Personal + sector	-0.0183	0.015
(5)	Adjusted GPG	Personal + occupation	-0.111***	0.016
(6)		Personal + sector + occupation	0.0081	0.017
(7)		All (personal + sector + occupation + informality)	0.00718	0.017

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-Blinderdecomposition of the gender pay gap inRwanda and confirms that personal and

labour-market characteristics explain the pay gap completely.

#### Table 7

Oaxaca-Blinder decomposition of the gender pay gap

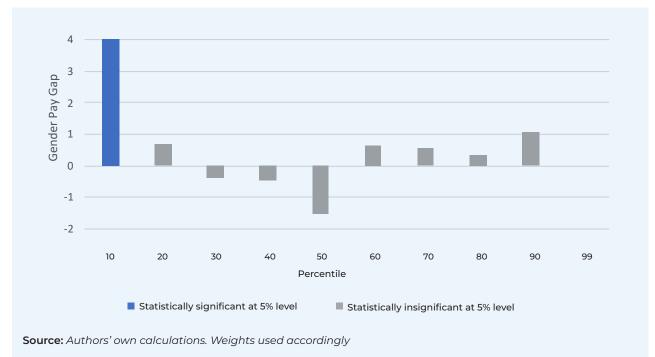
	Average log hourly wages
Mar	5.461***
Men	(0.013)
14/2	5.199***
Women	(0.012)
	0.262***
Difference (raw pay gap)	(0.018)
	0.269***
Explained part, i.e. explained by characteristics	(0.027)
	-0.0186
Unexplained part	(0.015)
	0.012
Interaction of the two parts	(0.026)

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

**Figure 6** presents the adjusted pay gap through deciles (and the top centile). Understanding the gender pay gap at different points of the wage distribution can be used to examine the prevalence of a sticky floor and glass ceiling in the economy. A sticky floor refers to a labour market where workers, usually women, in low-paying jobs have low job mobility and barriers to career advancement. A glass ceiling refers to impediments that prevent women from accessing top managerial and leadership positions. The adjusted gender pay gap is zero along the entire income distribution, except for the bottom 10 per cent of wage earners where women earn more than men. Thus, there is no evidence of either a sticky floor or a glass ceiling in Rwanda.



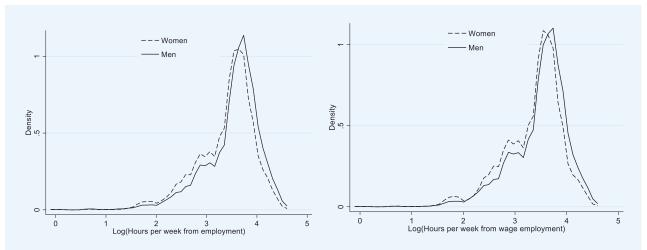
**Figure 6** Adjusted gender pay gap by decile and top percentile

#### 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 both total and wage employment is considered.

#### Figure 7

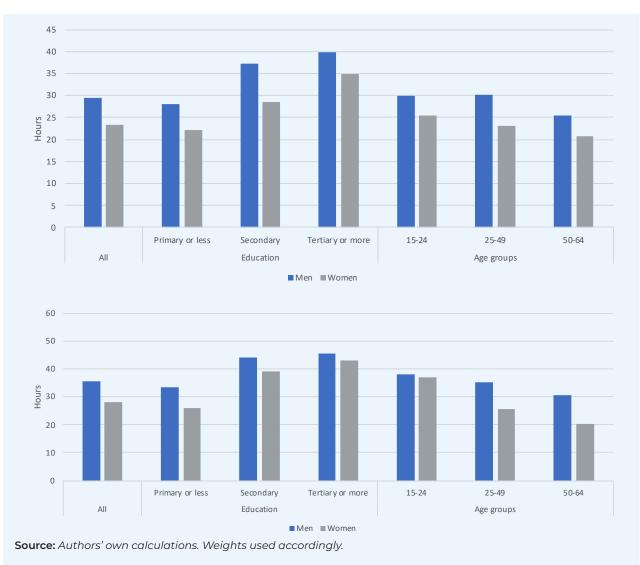




**Figure 8** suggests that women work fewer hours in both total and wage employment across all age groups and educational level categories. The hours' gap declines in magnitude with increasing educational level, while the hours' gap increases with age.

#### Figure 8

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



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 the hours' gap varies by sector and occupation. In sectors that employ the majority of women, i.e. agriculture, education, human health and other personal services, the hours' gap is negative. Interestingly, women also work shorter hours than men in elementary occupations.

#### 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	29.32	27.34	–1.98
Mining and quarrying	42.33	46.22	3.89
Manufacturing	41.97	40.46	-1.51
Electricity	41.92	46	4.08
Water supply	45.96	37.57	-8.39
Construction	37.35	32.59	-4.76
Wholesale and retail trade	44.43	49.86	5.43
Transportation and storage	40.71	32.32	-8.39
Accommodation and food service activities	50.85	49.56	-1.29
Information and communication	43.74	42.19	-1.55
Financial and insurance activities	47.95	42.44	-5.51
Real estate activities	53.93	29.56	-24.37
Professional, scientific and technical activities	41.21	44.89	3.68
Administrative and support service activities	57.18	38.23	-18.95
Public administration and defence	51.53	43.25	-8.28
Education	44.88	40.82	-4.06
Human health and social work activities	47.82	44.14	-3.68
Arts, entertainment and recreation	38.08	37.95	-0.13
Other service activities	42.91	30.96	-11.95
Activities of households as employers	54.65	55.35	0.7
Activities of extraterritorial organizations and bodies	47.45	44.47	-2.98
Occupation			1
Managers	47.35	46.39	-0.96
Professionals	45.32	42.69	-2.63
Technicians and associate professionals	46.7	41.39	-5.31
Clerical support workers	44.6	45.43	0.83
Services and sales workers	56.21	47.11	-9.1
Skilled agricultural, forestry and fish workers	39.09	26.93	-12.16
Craft and related trades workers	40.72	39.71	-1.01
Plant and machine operators and assemblers	48.66	48.02	-0.64

	Men	Women	Gender gap in hours
Elementary occupations	32.53	30.69	-1.84
Formality status			
Formal	42.76	37.55	-5.21
Informal	34.92	31.41	-3.51

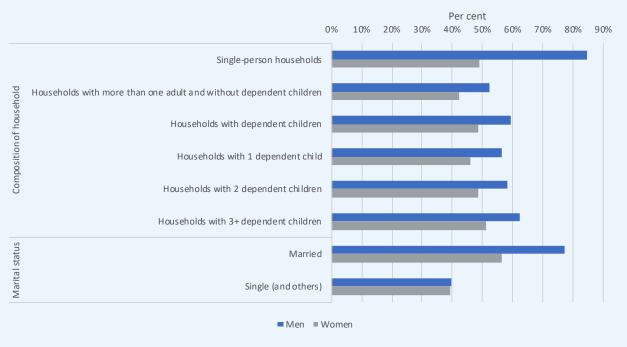
Source: Authors' own calculations. Weights used accordingly.

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

**Figure 9** presents the labour-market status by household type of both women and men. For all household types, employment rates are lower among women than among men. The gap is largest, interestingly, for singleperson households, at 35.5 p.p., and smallest for households with two children, at 9.6 p.p. By marital status, the difference is stark: the gender employment gap is 21 p.p. among married individuals, while employment rates are very similar among single women and single men. Thus, marriage is associated with a large gender employment gap, unlike the presence of children in the household.

#### Figure 9

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



The disaggregation of these numbers by age is shown in **Table 9.** The gender employment gap is smallest for those aged 15–24 years (5.0 p.p.). Generally, it is larger for single-person households than for households with multiple people, across all age groups. In 25-49 years age group, compared with a household with no dependents, the gaps are larger when one child or multiple children are present in the household. Thus, women in this age group seem to have more responsibilities with regard to childcare than men. By marital status, the gender employment gap is larger among married individuals than among single people across all age groups.

#### 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	Ageo	d 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 househo	ld								
Single-person households	89.1	39.0	-50.1	85.9	61.9	-24.0	76.2	41.4	-34.8
Households with more than one adult and without dependent children	39.2	26.9	-12.3	66.9	57.4	-9.5	60.0	48.7	-11.3
Households with dependent children	30.9	28.8	-2.1	78.4	60.7	-17.7	65.0	51.4	-13.6
Households with one dependent child	34.0	30.2	-3.8	75.6	58.7	-16.9	63.7	52.2	-11.5
Households with two dependent children	28.8	25.8	-3.0	78.5	61.2	-17.3	62.6	49.5	-13.1
Households with three or more dependent children	29.5	29.8	0.3	80.2	61.3	-18.9	68.6	51.8	-16.8
Marital status									
Married	79.5	46.4	-33.1	81.4	58.6	-22.8	65.0	50.6	-14.4
Single (and others)	31.8	26.4	-5.4	63.8	64.9	1.1	57.1	49.0	-8.1
Total	33.5	28.5	-5.0	77.2	60.3	-16.9	64.2	49.9	-14.3

**Table 10** shows the differences in employment rates by educational level, and household type and marital status. The gap for singleperson households with a primary educational level is very large, at 38.5 p.p., and slightly smaller for single-person households with secondary (31.9 p.p.) and tertiary (24 p.p.) educational levels. The other household types are alike within educational groups. An exception is the group tertiary-educated individuals in households with no children, where employment rates are about equal for men and women. Regardless of marital status, the gender employment gap is negative across educational groups, without any clear pattern.

#### Table 10

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

	Prir	nary or	less	S	econda	ry	Tert	tiary 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 househo	ld								
Single-person households	85.9	47.4	-38.5	83.4	51.5	-31.9	81.2	57.2	-24.0
Households with more than one adult and without dependent children	60.9	47.2	-13.7	38.8	31.7	-7.1	50.4	51.2	0.8
Households with dependent children	64.8	55.1	-9.7	41.5	32.4	-9.1	72.0	56.3	-15.7
Households with one dependent child	62.3	52.8	-9.5	42.9	32.4	-10.5	66.4	52.8	-13.6
Households with two dependent children	63.2	55.5	-7.7	42.3	33.2	-9.1	74.0	56.9	-17.1
Households with three or more dependent children	67.6	56.4	-11.2	38.6	31.5	-7.1	78.6	60.3	-18.3
Marital status									
Married	75.7	56.8	-18.9	81.8	50.8	-31.0	86.8	68.0	-18.8
Single (and others)	48.3	49.9	1.6	28.4	24.6	-3.8	41.5	38.2	-3.3
Total	64.7	53.7	-11.0	42.2	32.4	-9.8	65.8	55.0	-10.8

#### 3.8 Segregation by gender

**Table 11** presents the Duncan Segregation Index. The occupational segregation value is 0.13, while the sectoral segregation value is 0.33, reflecting low to moderate levels of gender segregation in Rwanda. This means that about one in every eight women and men employees would need to trade places across job categories and one third would need to do so across sectors for women's and men's distributions to become identical. By educational level, the numbers suggest that both occupational and sectoral segregation are strongest for secondary-educated individuals.

#### Table 11

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

		Edu	icational level	
	All	Primary or less	Secondary	Tertiary or above
Occupation	0.133	0.135	0.249	0.176
Sector	0.325	0.286	0.386	0.180

Source: Authors' own calculations. Weights used accordingly.

Table 12 dives into the composition of occupational group 1, legislators and managerial workers, which is considered the highest-skill occupational group as per the ISCO-08. TableA.1 shows that women are less frequently represented in the highest-skill occupations, i.e. as legislators, government officials and managers. Within this group, it can be observed that women are represented less than men in all four subgroups (Table 12)

and earn 4.9 per cent less than men (**Table 4**). However, **Figure 6** presents evidence suggesting that the adjusted gender pay gap is zero for the top 10 per cent and top 1 per cent of earners. Vertical segregation shows that women face barriers to career and pay progression within occupational groups and, when taken together, there is some evidence for vertical segregation in Rwanda.

#### Table 12

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

	Men (%)	Women (%)
Legislators and senior officials	81.5	18.5
Corporate managers	69.3	30.7
Production and specialized services managers	78.3	21.7
Hospitality, retail and other services managers	90.1	9.9



### 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 Rwanda. Strikingly, there is an 11.1 p.p. employment gap between women and men overall, and this is even larger among adults aged 25-64 years. Among the employed population, women consistently work for fewer hours than men. The unadjusted gender pay gaps in Rwanda are 38.5 per cent at the monthly level and 26.2 per cent at the hourly level, highlighting differences in working hours. These unadjusted gender pay gaps are seen across all educational level and are the widest among secondaryeducated individuals. Employment rates are influenced by marriage more so than the presence of dependants in the household. After accounting for individual and labourmarket characteristics, the adjusted gender pay gap becomes statistically insignificant or about zero.

The levels of occupational and sectoral horizontal segregation are low to moderate. Notably, occupational and sectoral segregation are most pronounced among secondaryeducated individuals. The gender pay gap varies across different wage deciles, revealing no evidence for a glass ceiling effect and mixed evidence for a sticky floor effect. Women are substantially underrepresented in high-skill occupational groups, particularly in leadership and managerial positions, although they earn higher wages than men in this occupational category, indicating some evidence for vertical segregation in Rwanda'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 sectoral and occupational segregation, differences in education and care responsibilities, and societal norms. Given that the adjusted gender pay gap is zero, efforts in Rwanda must focus on achieving equity between women's and men's individual and labourmarket characteristics. A comprehensive approach involving multiple stakeholders, including governments, employers, civil society organizations and individuals, is required to work towards this goal.

There is a substantial difference in educational attainment between men and women, but tertiary-level education is associated with narrower gender pay gaps. Thus, the provision of affordable and accessible education for women and girls can promote pay parity. Girls and women with increased and equal access to high-quality education and vocational training would acquire the knowledge, skills and gualifications necessary for higher-paying jobs. Moreover, higher education can challenge traditional gender stereotypes and biases, which could lead to fairer hiring practices and better career advancement opportunities for women. Addressing gender stereotypes in education and encouraging women's participation in fields dominated by men, such as science, technology, engineering and mathematics, are also important.

Sectoral and occupational segregation, as observed in Rwanda, 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 women are underrepresented. This can be done through targeted recruitment, training programmes, addressing discriminatory practices that prevent women from occupying high-paying managerial roles, 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 vertical segregation 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.<sup>22</sup> Policies that support a 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. Policies to increase employment formalization, supporting workers' unions and social protection programmes support women by improving their working conditions. 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. By shifting societal norms and challenging discriminatory beliefs, labour markets can become more inclusive, valuing skills and contributions over gender stereotypes. Better data on pay distribution, collected at frequent intervals, would also enable a better understanding of the gender pay gap in the country and improve the monitoring and evaluation of policy efforts.

In conclusion, achieving gender pay equality and addressing labour-market inequalities require a multifaceted approach involving various stakeholders across the economy. Public policy efforts to tackle the "explained" part of the gender pay gap can be varied. A few of them include 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, regulating the private sector to ensure care-friendly policies, and providing a robust social protection system. 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, Rwanda 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	47.7	69.4
Mining and quarrying	2.2	0.6
Manufacturing	3.4	1.6
Electricity	0.2	0.0
Water supply	0.3	0.1
Construction	21.5	4.2
Wholesale and retail trade	2.6	1.6
Transportation and storage	3.9	0.3
Accommodation and food service activities	1.6	1.0
Information and communication	0.3	0.1
Financial and insurance activities	0.5	0.3
Real estate activities	0.1	0.0
Professional, scientific and technical activities	0.4	0.3
Administrative and support service activities	2.6	1.3
Public administration and defence	2.2	1.1
Education	4.4	5.9
Human health and social work activities	1.2	1.8
Arts, entertainment and recreation	0.2	0.2
Other service activities	1.2	1.9
Activities of households as employers	3.5	8.4
Activities of extraterritorial organizations and bodies	0.1	0.1
Occupation		
Managers	1.3	0.5
Professionals	6.7	7.1
Technicians and associate professionals	1.0	0.5
Clerical support workers	0.6	1.2
Services and sales workers	6.1	3.5
Skilled agricultural, forestry and fish workers	0.3	0.1
Craft and related trades workers	9.3	0.5

	Men (%)	Women (%)
Plant and machine operators and assemblers	2.5	0.0
Elementary occupations	72.3	86.7
Formality status		
Formal	11.7	9.3
Informal	88.3	90.7

Source: Authors' own calculations.

				Adjusted GPG	U		
	Raw/ Unad- justed GPG	Personal characteris- tics only	Person- al + marriage	Person- al + sector	Personal + oc- cupation	Personal + sec- tor + occupa- tion	AII
Dependent variable: log hourly wages	vages						
	(L)	(2)	(3)	(4)	(5)	(9)	(2)
	-0.262***	-0.217***	-0.202***	-0.0183	$-0.111^{***}$	0.0081	0.00718
vender (I - lentale)	(0.018)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
		0.466***	0.468***	0.267***	0.251***	0.187***	0.178***
secondary		(0.021)	(0.021)	(0.021)	(0.022)	(0.021)	(0.021)
		1.795***	1.795***	1.376***	1.193***	1.068***	1.024***
reruary or above		(0.035)	(0.034)	(0.044)	(0.051)	(0.051)	(0.051)
() () <		0.0688***	0.0578***	0.0347***	0.0465***	0.0300***	0.0299***
Age		(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
		-0.000750***	-0.000627***	-0.000371***	-0.000518***	-0.000334***	-0.000335***
Age squared		(0000)	(0000)	(0000)	(0000)	(0000)	(0000)
			0.104***	0.107***	0.0822***	0.0808***	0.0764***
Marital status (I = Mariteu)			(0.018)	(0.018)	(0.018)	(0.017)	(0.017)
				0.268***		0.240***	0.235***
				(0.063)		(0.061)	(0.062)
				0.337***		0.0559	0.0443
				(0.049)		(0.048)	(0.048)
				1.085***		0.792***	0.698***
Electricity				(0.169)		(0.163)	(0.167)
				0.769***		0.423***	0.385***
water suppry				(0.174)		(0.132)	(0.129)
				0.698***		0.570***	0.572***
				(0.022)		(0.023)	(0.023)

Table A.2 Adiusted gender pay gap (regression estimates on log hourly wa

	- : :			Adjusted GPG	U		
	Raw/ Unad- justed GPG	Personal characteris- tics only	Person- al + marriage	Person- al + sector	Personal + oc- cupation	Personal + sec- tor + occupa- tion	All
				0.374***		0.293***	0.299***
				(0.061)		(0.063)	(0.063)
				0.648***		0.319***	0.325***
				(0.056)		(0.051)	(0.051)
Accommodation and food				0.351***		0.411***	0.403***
service activities				(660:0)		(0.104)	(0.105)
Information and				1.141***		0.850***	0.818***
communication				(0.193)		(0.189)	(0.184)
Financial and insurance				0.947***		0.684***	0.633***
activities				(0.118)		(0.107)	(0.108)
				0.848***		0.816***	0.834***
Keal estate activities				(0.309)		(0.261)	(0.262)
Professional, scientific and				1.185***		0.860***	0.869***
technical activities				(0.217)		(0.214)	(0.212)
Administrative and support				0.177***		0.205***	0.154**
service activities				(0.051)		(0.059)	(0.062)
Public administration and				0.746***		0.441***	0.338***
defence				(0.061)		(0.069)	(0.070)
() ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;				0.384***		-0.00853	-0.0604
Education				(0:040)		(0.056)	(0.059)
Human health and social work				0.600***		0.265***	0.197**
activities				(0.068)		(0.076)	(0.078)
Arts, entertainment and				1.063***		0.801***	0.787***
recreation				(0.214)		(0.205)	(0.207)
				0.447***		0.365***	0.365***
				(0.058)		(0.063)	(0.063)
Activities of households as				-0.536***		-0.580***	-0.587***
employers				(0.028)		(0.027)	(0.027)
Activities of extraterritorial				1.642***		1.428***	1.385***
organizations and bodies				(0.361)		(0.311)	(0.303)

Raw Unad- Disted CPGPersonal personalsPersonal personalsPersonal personalsProfessionalsFordessionalsImarriasPersonal professionalsTechnicians and associateImarriasImarriasPersonalsFordessionalsImarriasTechnicians and associateImarriasImarriasPersonalsImarriasImarriasClerical support workersImarriasImarriasSkilled agricultural, forestry and fish workersImarriasImarriasSkilled agricultural, forestry and fish workersImarriasImarriasCraft and related trades workersImarriasImarriasPlant and machine operatorsImarriasImarriasPlant and machine operatorsImarriasImarriasArmed forcesImformal workerImformal workerInformal workerImformal workerImformal worker	Person- al + marriage	Person-         Personal + oc-           al + sector         -0.0843           -0.0843         (0.081)           -0.342***         (0.081)           -0.342***         (0.079)           -0.342***         (0.079)           -0.0826         (0.096)           -0.828***         (0.096)           -1.232***         (0.080)	\$ <u>6</u>	All -0.0704 (0.082) -0.252*** (0.081) -0.177*
ProfessionalsProfessionalsProfessionalsTechnicians and associateProfessionalsProfessionalsProfessionalsProfessionalsProfessionalsClerical support workersProfessionalsProfessionalsServices and sales workersProfessionalsProfessionalsSkilled agricultural, forestry and fish workersProfessionalsProfessionalsSkilled agricultural, forestry and fish workersProfessionalsProfessionalsShilled agricultural, forestry and fish workersProfessionalsProfessionalsSkilled agricultural, forestry and fish workersProfessionalsProfessionalsShilled agricultural, forestry and fish workersProfessionalsProfessionalsShilled agricultural, forestry and fish workersProfessionalsPr		-0.0843 (0.081) -0.342*** (0.079) -0.0826 (0.096) -0.828*** (0.080) -1.232***	-0.089 (0.086) -0.275*** (0.086) -0.101 (0.100) -0.739*** (0.080)	-0.0704 (0.082) -0.252*** (0.081) -0.177*
Technicians and associate professionalsTechnicians and associate professionalsClerical support workersClerical support workersServices and sales workersServices and sales workersSkilled agricultural, forestry and fish workersSkilled agricultural, forestry and fish workersShilled agricultural, forestry and fish workersSkilled agricultural, forestry and fish workersSkilled agricultural, forestry and fish workersShilled agricultural, forestry and fish workersShilled agricultural, forestry and fish workersShilled agricultural, forestry and fish workersShilled agricultural, forestry and fish workersPlant and machine operatorsPlant and machine operatorsPlant and machine operatorsPlant and forcesArmed forcesInformal workerInformal worker		(0.096) -0.342*** (0.079) -0.0826 (0.096) -0.828*** (0.080) -1.232***	(0.086) -0.275*** (0.086) -0.101 (0.100) -0.739*** (0.080)	(0.081) -0.252*** (0.081) -0.177*
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Skilled agricultural, forestry and fish workersSkilled agricultural, forestry and fish workersCraft and related trades workersPlant and machine operatorsPlant and machine operatorsPlant and machine operatorsand assemblersPlant and machine operatorsand assemblersPlant and machine operatorsElementary occupationsPlant and machineArmed forcesPlant and machineInformal workerPlant and machine		-1.232***		(0.074)
fish workersmCraft and related trades workersmPlant and machine operatorsmand assemblersmElementary occupationsmArmed forcesmInformal workerm			-0.839***	-0.823***
Craft and related trades workersCraft and related trades workersPlant and machine operatorsPlant and machine operatorsand assemblersElementary occupationsElementary occupationsArmed forcesArmed forcesInformal worker		(0.033)	(0.104)	(0.105)
Crait and related trades workers       Plant and machine operators       and assemblers       Elementary occupations       Armed forces       Informal worker		-0.741***	-0.768***	-0.560***
Plant and machine operators     Plant and machine operators       and assemblers     Elementary occupations       Elementary occupations     Plant and Plant a		(0.088)	(0.094)	(960.0)
and assemblers		-0.703***	-0.617***	-0.573***
Elementary occupations Armed forces Informal worker		(0.087)	(0.095)	(0.092)
Armed forces Informal worker		-1.047***	-0.802***	-0.638***
Armed forces Informal worker		(0.078)	(0.080)	(0.076)
Informal worker		0.0708	-0.171	-0.139
Informal worker		(0.187)	(0.216)	(0.166)
				-0.678***
				(0.033)
5.461*** 3.865*** 4.013***	4.013***	4.274*** 5.354***	5.519***	5.653***
CUISCAILE -0.0129 -0.0684 -0.0733	-0.0733	-0.0688 -0.122	-0.125	-0.124
Observations 12,918 12,918 12,918 12,918	12,918	12,918 12,918	12,918	12,823
R-squared 0.021 0.338 0.34	0.34	0.451 0.409	0.484	0.482

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

### REFERENCES

- ILO (International Labour Organization) (2018). Global Wage Report 2018/19: What Lies Behind Gender Pay Gaps. Geneva: ILO.
- 2. World Bank (2023). "Rwanda." Accessed 20 November 2023. <u>https://data.worldbank.org/</u> <u>country/rwanda.</u>
- World Bank (2023). "Gender Equality Assesses the Extent to Which the Country has Installed Institutions and Programs to Enforce Laws and Policies that Promote Equal Access for Men and Women in Education, Health, the Economy, and Protection Under Law." Accessed 20 November 2023. <u>https:// databank.worldbank.org/metadataglossary/ country-policy-and-institutional-assessment/ series/IQ.CPA.GNDR.XQ.</u>
- World Bank (2023). "CPIA Gender Equality Rating (1 = Low to 6 = High) – Rwanda." Accessed 20 November 2023. <u>https://data.worldbank.org/indicator/IQ.CPA.GNDR.XQ?locations=RW.</u>
- 5. UN Women (2023). "Rwanda." Accessed 20 November 2023. <u>https://data.unwomen.org/</u> <u>country/rwanda.</u>
- World Bank (2023). "Poverty Headcount Ratio at \$2.15 a Day (2017 PPP) (% of Population)." Accessed 24 November 2023. <u>https://data.worldbank.org/indicator/SI.POV.</u> DDAY?locations=RW.
- 7. ILO (International Labour Organization) (2016). Women at Work: Trends 2016. Geneva: ILO.
- Wodon, Q. and B. De La Briere (2018).
   "Unrealized Potential." Journal of Biogeography 16 (5), 498.
- Blau, F.D. and L.M. Kahn (2003).
   "Understanding International Differences in the Gender Pay Gap." Journal of Labor Economics 21 (1), pp. 106–144.
- Mincer, J. (1974). Schooling, Experience, and Earnings. New York: Columbia University Press.
- Budig, M.J. and P. England (2001). "The Wage Penalty for Motherhood." American Sociological Review 66 (2), pp. 204–225.

- ILO (International Labour Organization) (2016). "ISCO: International Standard Classification of Occupations – ISCO-08 Structure, Index Correspondence with ISCO-88." Accessed 17 November 2023. <u>https://www.ilo.org/public/</u> english/bureau/stat/isco/isco08/.
- Eurostat (2008). NACE Rev.2: Statistical Classification of Economy Activities in the European Community. Accessed 17 November 2023. <u>https://ec.europa.eu/eurostat/</u> <u>documents/3859598/5902521/KS-RA-07-015-EN.PDF.</u>
- Buchinsky, M. (1998). "Recent Advances in Quantile Regression Models: A Practical Guideline for Empirical Research." Journal of Human Resources 33 (1), pp. 88–126.
- 15. Koenker, R. and G. Bassett (1978). "Regression Quantiles." Econometrica 46 (1), pp. 33–50.
- Kitagawa, E.M. (1955). "Components of a Difference Between Two Rates." Journal of the American Statistical Association 50 (272), pp. 1168–1194.
- Oaxaca, R.L. (1973). "Male–Female Wage Differentials in Urban Labor Markets." International Economic Review 14 (3), pp. 693–709.
- Blinder, A.S. (1973). "Wage Discrimination: Reduced Form and Structural Estimates." The Journal of Human Resources 8 (4), pp. 436–455.
- Fortin, N.M., T. Lemieux and S. Firpo (2011).
   "Chapter 1: Decomposition Methods in Economics." In Handbook of Labor Economics. O. Ashenfelter and D. Card (Eds.). Amsterdam: Elsevier, pp. 1–102.
- 20. Duncan, O.D. and B. Duncan (1955). "A Methodological Analysis of Segregation Indexes." American Sociological Review 20 (2), pp. 210–217.
- 21. Blau, F.D., M. Ferber and A. Winkler (2002). The Economics of Women, Men and Work. 4th Edition. Englewood Cliffs, NJ: Prentice Hall.
- 22. ILO (International Labour Organization) (2018). Global Wage Report 2018/19: What Lies Behind Gender Pay Gaps. Geneva: ILO.

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