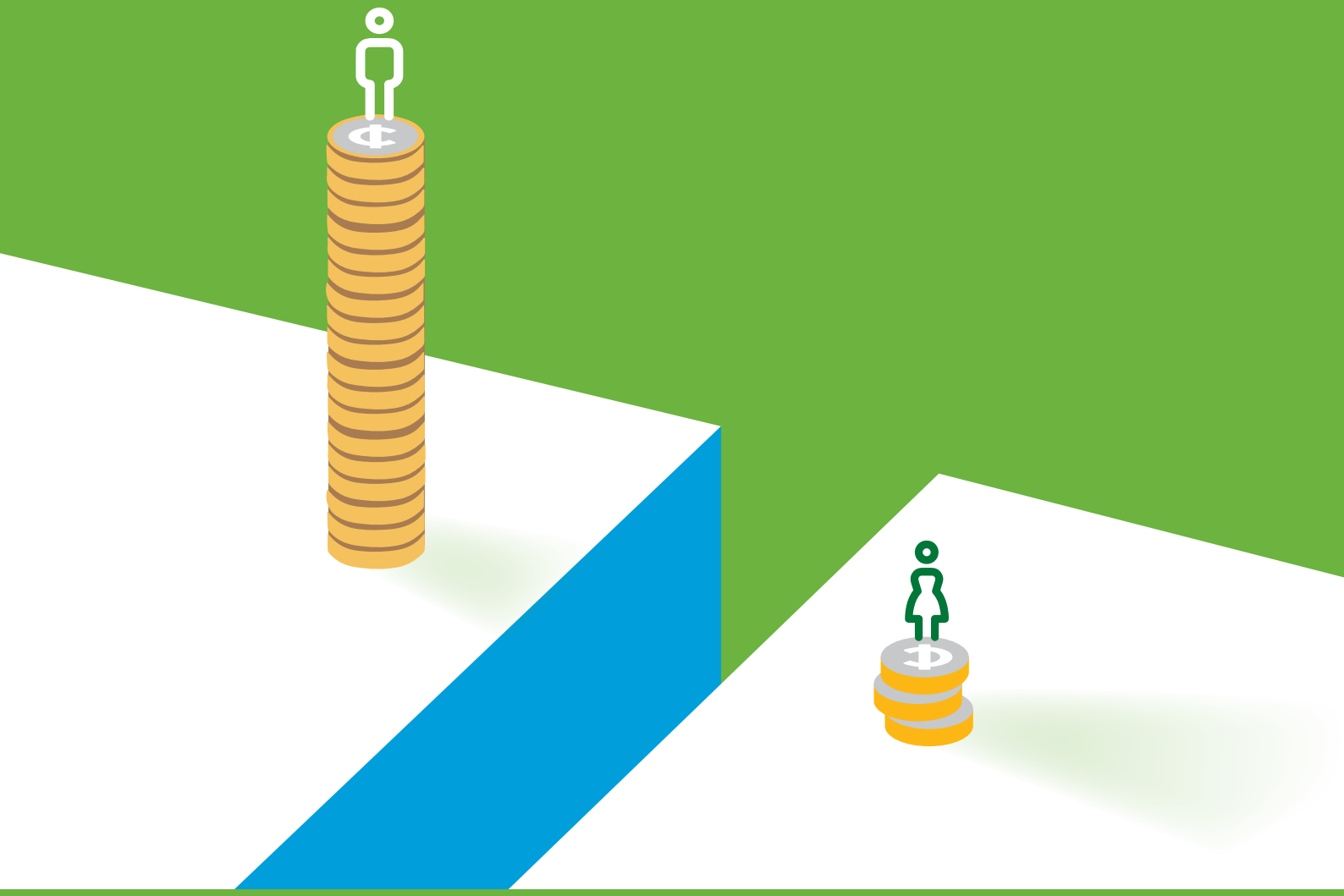


WHY WOMEN EARN LESS

GENDER PAY GAP AND LABOUR-MARKET INEQUALITIES IN EAST AND SOUTHERN AFRICA

UN WOMEN

Updated 24 October 2023

Authors
Mehjabeen Alarakhia, Marjan Petreski, Zahra Sheikh Ahmed and Tanima Tanima

Proofreading and editing
Prepress Projects Limited

Design and layout
Conrad Mudibo, UN Women, ESARO

UN Women East and Southern Africa Regional Office
UN Gigiri Complex, UN Avenue; Block M, Ground Floor
P.O. Box 30218-00100 Nairobi, Kenya
Tel: +254 20 762 4778

Website: africa.unwomen.org
Email: esaro.publications@unwomen.org

WHY WOMEN EARN LESS

GENDER PAY GAP AND LABOUR-MARKET INEQUALITIES IN EAST AND SOUTHERN AFRICA

UN WOMEN

ACKNOWLEDGMENT

The authors would like thank Celestine Mulifor for support with the analysis, Prepress Projects Limited for proofreading, and the Women's Economic Empowerment team of UN Women for support and technical guidance. The authors would like to extend our sincere appreciation to Zebib Kavuma and Jemimah Njuki for their invaluable support and leadership in shaping the outcomes of the report. The authors would also like to thank the following UN Women staff members who have provided inputs and comments during the internal review process: Jack Abebe (UN Women, ESARO), Hirut Bekele (UN Women, Ethiopia CO), Jocelyn Chu (UN Women, HQ), Dominique Kanobana (UN Women, Rwanda CO), Simegn Kuma (UN Women, Ethiopia CO), Simon Nissling (UN Women, Uganda CO), Isabella Schmidt (UN Women, ESARO), Awatif Ahmed Nihar Tagir (UN Women, Sudan CO), and Valentine Waroga (UN Women, ESARO). The views expressed in this publication are those of the authors and do not necessarily represent the views of UN Women, the United Nations or any of its affiliated organizations or the National Statistics Offices that provided the microdata. This study was made possible by financial support received from UN Women's Core Donors, the Government of Sweden, the Government of Canada and the Bill and Melinda Gates Foundation.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF BOXES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

ESA	East and Southern Africa
GDP	gross domestic product
ILO	International Labour Organization
ISCO-08	International Standard Classification of Occupations 2008
NACE	Statistical Classification of Economic Activities in the European Community
OLS	ordinary least squares
p.p.	percentage point
SDG	Sustainable Development Goal

EXECUTIVE SUMMARY

Despite progress in women's economic and political participation, formal employment and education attainment, gender pay gap remains a pervasive labour-market feature across the world. The objective of this study was to calculate and shed light on the gender pay gap and other labour-market inequalities in 10 selected countries of East and Southern Africa (ESA). The study analyses the gender pay gap and other labour-market inequalities in the region using quantitative techniques from labour economics, allowing a comparison of wages as a function of education, age, marital status, sector and occupation, job informality status and gender. The estimates were then used to determine how much of the wage differential could be explained by the observable differences in the characteristics of women and men. Likewise, several related measures were estimated to explore other labour-market inequalities by gender, including employment gaps and horizontal gender segregation.

The study shows that **women in ESA earn only about 81 cents for every dollar earned by men**, on an hourly basis. This means that the raw (also called unadjusted) gender pay gap in ESA is 18.8 per cent, which is slightly lower than the global estimate of 20 per cent for 2019. This leads to lifetime income inequality between women and men, and further contributes to higher levels of poverty among women. The raw gender pay gap does not consider the personal or labour-market characteristics of individuals, which are important determinants of the pay gap. Hence, the gender pay gap may exist because individuals simply differ in, for example, educational level, experience or age. When considering other factors that determine pay, such as age, education and type of job, **women earn 92 cents for every dollar that men earn per hour**. Thus, when such a gap is adjusted for individual and labour-market characteristics, it reduces for the whole region, to 8.2 per cent, 10.6 percentage points lower than the raw pay gap.

Observable characteristics explain significant portions of the gender pay gaps in Ethiopia, Malawi, Rwanda, South Africa and the United Republic of Tanzania. In Mozambique and Tanzania, the gap is statistically insignificant when adjusted. In Mauritius and Namibia, the gender pay gap increases when adjusted, by 3.8 percentage points and 5.3 percentage points, respectively, revealing that working women in these countries have better personal and job characteristics than working men, hence observable characteristics cannot explain the gap but rather amplify it.

On a monthly basis, women earn about 72 cents for every dollar that men earn. In other words, the raw monthly gender pay gap is 27.6 per cent, compared with the raw hourly gender pay gap of 18.8 per cent. This difference arises because women spend fewer hours in paid work every week. They spend 42 hours per week in paid jobs, while men spend 47 hours per week in paid work. This explains different portions of the monthly pay gap in each country, ranging from explaining the monthly pay gap in its entirety in Mozambique to explaining 3.5 percentage points of the gap in Malawi. Women's disproportionate unpaid care work responsibilities, compared with men, limit the time they can spend on paid jobs.

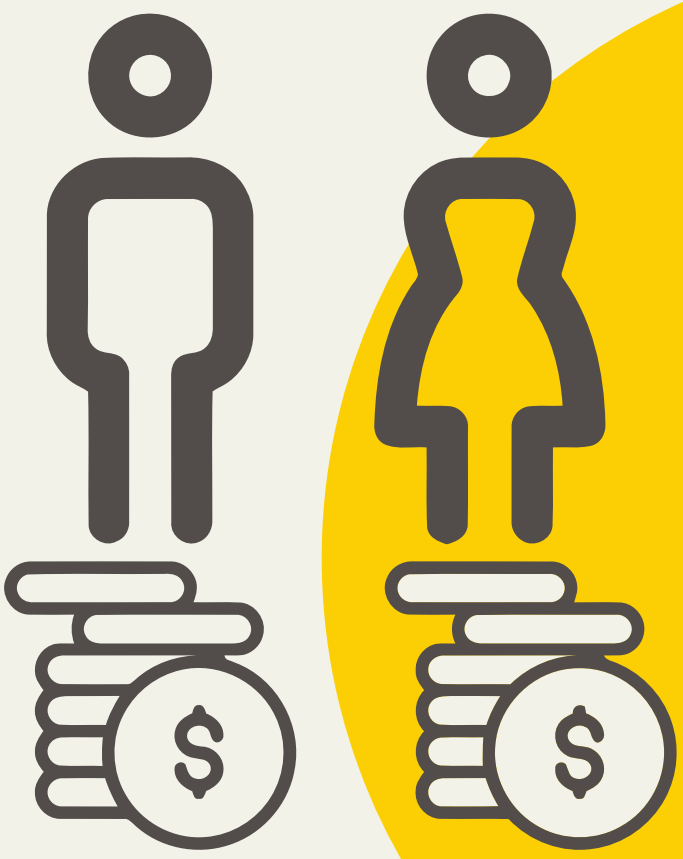
Women with tertiary-level education face a smaller gender pay gap than women with primary-level education. Women with tertiary-level education earn 18 per cent less than men with the same level of education, while women with primary-level education earn 31 per cent less than men with the same level of education. The gender pay gap is larger among those with primary-level education, suggesting that women in ESA with lower educational levels suffer more in terms of low remuneration than men in the same educational groups.

A lower share of women than men in ESA are employed in the highest-skilled managerial occupations, **lending some support to the existence of a glass ceiling effect, preventing women from climbing up the occupational ladder.** Likewise, the gender pay gaps of the top 10 per cent of earners are generally larger than the average gender pay gaps, i.e. in the highest-paid positions, women are more disadvantaged in terms of pay than the average woman. This indicates that impediments prevent women from accessing top managerial and leadership positions. Various invisible barriers under the broad category of discrimination and cultural norms about women's role in society as primary caregivers may prevent women from easily climbing to the highest-ranked positions and from earning the highest wages.

The sectoral and occupational segregation in ESA is striking, with women overrepresented in low-pay and low-status sectors and occupational categories. The Duncan Segregation Index shows that 31 per cent of men or women would need to change their sector or 24 per cent of men or women would need to change their occupation to achieve no segregation. In addition, only 2 per cent of working women have high-paying and high-status managerial jobs, while 3 per cent of working men have similar managerial jobs.

Furthermore, **in ESA countries in which the overall employment rate among women is low and much lower than the employment rate among men, the gender pay gap is significantly wider.** The gender employment gaps in households with or without dependent children are rather similar in ESA, hence not lending strong support to the notion that the presence of children in the household strongly affects the labour-market decisions of women. **However, the gender employment gap among married women is significantly wider than among single women**, suggesting that marriage leads to deepening of gendered division of work, which leads to lower economic participation of women.

Achieving gender pay equality and addressing labour-market inequalities requires a multifaceted approach involving various stakeholders across the economy. Better data on the wage distribution, collected at frequent intervals, would enable a better understanding of the gender pay gap in the region 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 men, 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, ESA countries can unlock the full potential of their workforce, fostering socioeconomic advancement, innovation and sustainable economic growth.



1 INTRODUCTION

1 INTRODUCTION

Despite progress in women's economic and political participation, formal employment and education attainment, gender pay gap remains a pervasive labour-market feature across the world. More and more countries – both industrialized and developing – have passed laws mandating the equal treatment of women in the labour-market, with the objective of reducing gender economic inequalities. The gender pay gap is a broader reflection of the work-related and economic inequality of women in the labour-market, 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.[1] Understanding the gender pay gap and its determinants would support awareness-raising 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 development.

The gender pay gap estimated as a pure difference between men's and women's wages is known as the unadjusted or "raw" gender pay gap. It is considered raw because it does not take into account the characteristics of the individuals used in the comparison. Hence, the gender pay gap may exist because individuals simply differ in, for example, educational level, experience or age. When these are considered, the gap becomes "adjusted", that is, adjusted for individual and labour-market characteristics. The adjusted gender pay gap provides a more accurate reflection of gender pay inequality in the labour-market.

At the global level, the Sustainable Development Goals (SDGs) aim to achieve gender equality within SDG 5, which stipulates: "Achieve gender equality and empower all women and girls". 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. The goal of equality in earnings is the specific subject of SDG 8, "Decent Work and Economic Growth", with Indicator 8.5.1 relating specifically to the average hourly earnings of women and men employees, by occupation and age, and for persons with disabilities. 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. While quite significant progress has been made for the majority of these indicators, a large amount of work is still needed as, for example, at the global level women still earn only 73 cents for each US dollar earned by men.[2]

The existence and persistence of the gender pay gap may have unfavourable outcomes at both the individual and societal levels. For example, the gap is more frequently connected with higher levels of poverty among women. Women's pay being lower than men's during their working years translates into their income from social security and pensions after retirement, and from other social benefits such as life insurance, also being lower. Moreover, 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.[3] Overall, women's lower earnings can lead to a reduction in bargaining power and in independence, and lifetime income inequality between genders, which helps maintain the lower status of women in society and ultimately contributing to lower rates of gross domestic product (GDP) and GDP growth.

In addition, when the household 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.[4]

An increasing number of countries – both industrialized and developing – are passing laws mandating the equal treatment of women in the labour-market, with the objective of reducing gender economic inequalities. Labour and anti-discrimination laws, and laws and policies governing parental leave and childcare availability, are on the agenda in various countries worldwide, most of which transpose several key International Labour Organization (ILO) conventions into national laws. Most notably, the Equal Remuneration Convention, 1951 (No. 100), stipulates that women and men are entitled to equal remuneration for work of equal value. The key concept of this ILO convention is "equal value", suggesting that the work could come in two forms: (1) equal or identical work in equal, identical or similar conditions; or (2) different kinds of work that, based on objective criteria, are of equal value. The latter implies that, at first sight, jobs may look different, even though they may be of equal value in terms of the weight and difficulties of task performance, i.e. in terms of the required skills, effort, responsibilities and working conditions. Two other related ILO conventions are the Workers with Family Responsibilities Convention, 1981 (No. 156), promoting non-discrimination, work–family balance and access to vocational training for mothers and fathers; and the Maternity Protection Convention, 2000 (No. 183), which sets minimum standards for maternity protection.

East and Southern Africa (ESA) comprises of 25 countries, stretching from the Red Sea in the north to the Cape of Good Hope in the south.[5] Its population was 720 million in 2022, approximately 60% of Africa's population, according to the World Bank. The region had an estimated GDP of US$1.9 trillion in 2021, with South Africa being the region's largest economy followed by Angola, Kenya then Ethiopia. Mauritius and Seychelles are the region's only high-income economies. This study is one of the first comprehensive analysis discussing labour-market disparities in the region.

The objective of the present study is to calculate the adjusted gender pay gap and the associated economic inequalities of women in the labour-markets of 10 countries in ESA: Ethiopia, Kenya, Malawi, Mauritius, Mozambique, Namibia, Rwanda, South Africa, Uganda and United Republic of Tanzania. This selection of countries was mainly driven by data availability. Findings from the latest versions of household or labour force surveys were used to calculate and decompose the gender pay gap, as well as to provide a broader set of work-related inequalities considering SDGs 5 and 8.

The study is structured as follows. Chapter 2 provides background related to the gender pay gap and reviews some global empirical findings in the literature. Chapter 3 presents the underlying methodologies for calculating and decomposing the gender pay gap, paying attention to the data used. Chapter 4 discusses the results obtained for the entire group of countries analysed and Chapter 5 concludes, discusses limitations to the study and offers policy recommendations.

2 BACKGROUND

2 BACKGROUND

A large amount of empirical evidence exists related to the gender pay differentials since the mid-20th century. Global literature identifies two sources of the gender pay gap: (1) individuals having different labour-market characteristics (i.e. they may work in different sectors and workplaces) and human capital (e.g. women may have less experience than men because of career interruptions related to child-rearing); and (2) the labour-market potentially discriminating against women, causing them to receive lower returns for the same characteristics that men have. Both factors could reinforce each other; for instance, women may be inclined to invest less in their human capital if they observe discrimination in the labour-market. This chapter provides a brief overview of existing literature on these two sources of the gender pay gap, and discusses other labour-market inequalities by gender.

2.1 The explained gender pay gap

The gender pay gap arising from differences in individuals' human capital is known as the **explained** part of the gender pay gap. In other words, the average employed woman may not be identical to the average employed man, in terms of level of education, work experience, productivity level, occupation, industry sector or other factors, and this has to be taken into account in discussions and estimations of the gender pay gap.[6] It may be that women, especially in the past, have been consistently underinvesting in their education or that their career interruptions to devote time to their household and children are penalized by the labour-market. It is also well known that occupational gender segregation, i.e. the systematic concentration of women in particular jobs, is a common feature of labour-markets across the world, and is likely to explain part of the gender pay gap.[7]

Educational level has a significant explanatory power over pay and, hence, over the gender pay gap. At the global level, the declining pay gap, to a large extent, is due to the increasing educational level of women,[8] especially in the upper deciles of the income distribution.[9] However, the choice of educational fields is often gendered, which attenuates the positive effect of increased level of education on the gender pay gap. Furthermore, a woman's particular educational field determines her career path, thereby contributing to gender segregation by sector and occupation. For instance, gender stereotypes still direct women into traditional, lower-pay careers, irrespective of whether women can perform well in jobs and sectors that are dominated by men.[10] Teachers and families discourage women and girls early in their life from entering the fields of technology, science and mathematics and, instead, suggest that they choose a field that is "easier" or "female", like paid domestic work and nursing.[11]

Almost as important as education is work experience in explaining the gender pay gap. In particular, women tend to have more gaps in their work experience than men, especially because of childbirth and child-rearing. This not only determines their actual accumulation of experience, but may also affect their motivation to undertake on-the-job training as a way of keeping their skills up to date. Women tend to invest less in market-oriented education, given their expectations for labour-market interruptions, which then affects their wages.[12] Lower levels of work experience and skills lead to lower pay throughout a woman's career.[13]

Some evidence suggests that marriage and children contribute to the gender pay gap, although their influence on earnings has been frequently disputed. It is likely that women choose occupations or sectors that provide sufficient flexibility to balance their unpaid care work responsibilities with their paid work responsibilities. For women to advance in their jobs and increase their pay, they need to reduce their unpaid care work responsibilities.[14] The "motherhood penalty" describes how

mothers encounter disadvantages in the labour-market because of their temporary removal from the workforce and/or conflicts between unpaid care work and paid work responsibilities. Men, in contrast, experience the "fatherhood bonus", whereby men are likely to receive higher salaries and bonuses after having a child.[15] Overall, marriage and children most likely affect women's pay on the basis of productivity, as pay is significantly correlated with time invested, which, in turn, is determined by how a woman divides her time between her unpaid care and labour-market duties.[16]

In addition to education and experience, a significant portion of the gender pay gap can be explained by occupation and industry differences between women and men.[17] Complex social, economic, cultural and historical factors are at the root of such segregation. Specific types of educational field, as mentioned above, result in women pursuing careers in sectors or occupations that are generally lower paid. Societal norms and gender stereotypes at home, in school and in the workplace also play a key role in women's and men's occupational choices.[18] Labour-market structure, social security systems and discrimination at work affect and reinforce occupational gender segregation. However, occupations that are considered "easier" or "feminine" are considered less prestigious, and hence are paid poorly.[19] Thus, the professional choices that women and men make do not entirely reflect individual preferences and often exclude women from pursuing certain occupational paths.

Occupational and/or sectoral segregation can be horizontal or vertical.[20] Horizontal segregation by gender implies that a sector, occupation or workplace is dominated by men or women, while vertical segregation by gender suggests that opportunities for career progression within a particular occupation, sector or workplace are limited by gender. Both types of segregation cause substantial differences pay between genders, with men tending to work in the higher-paying "masculine" jobs and women tending to work in the lower-paying "feminine" jobs.[21] Vertical segregation is particularly visible in those cases where men in "feminine" occupations and/or sectors (e.g. textiles) are paid more than women. Moreover, although women working in traditionally men-dominated fields are likely to receive higher pay than those working in traditionally women-dominated fields, the gender pay gap still remains in these sectors, i.e. women are still paid less than men for the same level of work, experience and education.[22] This boils down to societal norms and attitudes, or a labour force structured by society to the advantage of men.[23]

In addition to occupational and sectoral pay differences, and their implications for the gender pay gap, an important factor explaining the gender pay gap is the informality of some jobs, which is particularly relevant for developing economies. Women work relatively more than men do in the informal sector in sub-Saharan Africa.[24] Restricted by unpaid care work duties, women frequently require more flexible working arrangements, which, if not available formally, may be offered by the informal sector. Informal work is usually associated with a wider gender pay gap, due to the typically lower bargaining power and lower educational level of workers, especially women, in this sector.[25] The informal sector can circumvent workplace regulations, such as a statutory minimum wage, which may then further depress women's wages and result in wider gender pay gaps than in the formal sector.

2.2 The unexplained gender pay gap

Although a large portion of the gender pay gap can be explained by key individual characteristics – most notably educational level and work experience – and job characteristics, a substantial part remains unexplained.[26] The **unexplained** part of the gender pay gap is often thought to result from discrimination. Yet, this is often a naive approach to the discussion and understanding of the gender pay gap for a few reasons.[27] The following factors can "explain" the unexplained part of the gender pay gap: (1) the statistical estimation of the adjusted gender pay gap may still be missing important individual or labour-market characteristics that

may significantly impact the gender pay gap, a problem that is overcome through the inclusion of a wide variety of observable characteristics in the wage equation; (2) "unobservable" – notably ability, motivation, devotion, attentiveness, risk aversion, attitude to work, social networks and bargaining power, among others – may affect the wages of women and men differently but cannot be captured by observable characteristics; and (3) women with particular characteristics (e.g. better educated women) may tend to self-select into the labour-market, leading to a selection bias. After considering individual and labour-market characteristics and labour-market selection bias, the gender pay gap may still persist. The remaining part of the gender pay gap can be "explained" on the grounds of discrimination.

Selection bias is an important part of understanding the gender pay gap.[28] Conceptually, selectivity bias works along with the relationship between the gender pay and participation gaps. ESA has substantial differences in labour-market participation rates between women and men. Differential participation rates may be related to various factors, including unpaid care work responsibilities, gendered stereotypes and prejudices, and the availability of other stable flows of income, such as remittances or social assistance. Thus, women who do not feature in the labour-market do not have an observable wage, i.e. they do not feature in the wage distribution. If they are systematically different from women for whom a wage is observed or who do earn a wage, then there are grounds for the concern that the estimated gender pay gap is biased. In other words, the gender pay gap does not adequately capture the difference in women's and men's labour-market experiences. Some researchers have corrected for this by imputing wages of women outside the labour force, but such an analysis was outside the scope of this study.

2.3 Other labour-market inequalities

While the gender pay gap plays a dominant role in capturing work-related gender inequalities, it should be recognized that such inequalities affect areas beyond pay equity. For example, Target 5.5 of SDG 5 "Gender Equality" stipulates the need to "Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life". Therefore, in addition to equal pay, to achieve gender equality, society should strive to provide the same opportunities and privileges to both women and men, including by ensuring that there are no barriers to women's full participation in the workplace, there is no discrimination against women in the household, at school or in the labour-market, and women have equal access to leadership positions.

The competing pressure on women's daily time is one of the most relevant topics when discussing gender-related inequalities. Many households are built around the presumption that women are the primary caregivers and men are the breadwinners. As a result, women are more likely to take on responsibilities for household chores and parenting roles, and spend less time in the workforce – temporarily or permanently – which translates into fewer hours worked for pay than men.[29] Globally, women spend 16 fewer hours on paid work than men per week, while in sub-Saharan Africa this time difference is 11 hours.[30]

Although both paid work and unpaid care work is vital for social and economic production, only paid work is economically rewarded.[31] The net result of this is that much of women's work is not remunerated, is not valued and ultimately subsidizes men's participation in the labour force. Furthermore, working fewer hours in paid employment, even within pre-agreed flexible arrangements, may deter women (particularly mothers) from taking on additional tasks, working late hours and travelling. This can prompt discrimination based on the assumption that women are less devoted and productive in the workplace, which, in turn, limits their chances of climbing up the occupational and remuneration ladders.

Women also face multiple barriers as they climb the occupational ladder.[32] A prominent 1986 article in the *Wall Street Journal* popularized

this phenomenon as the "glass ceiling" effect. The literature generally treats this type of work-related inequality as an absolute barrier for women to taking up higher positions of power in the workplace.[33] In this vein, women face an invisible line below which they achieve a modest degree of workplace power (e.g. supervisory roles) and above which they do not (e.g. managerial control). This line materializes through conscious and subconscious discriminatory practices.[34] Such discriminatory practices have also been labelled the "concrete ceiling", to depict even stronger barriers than the glass ceiling that prevents women from progressing to the highest professional levels. [35] The "sticky floor" is a related concept that describes women stuck in low-paying and low-ranking jobs because of invisible barriers to career advancement.[36]

Women and men also differ in the contractual relationships involved in work. As women are the ones who primarily undertake unpaid care work– particularly in patriarchal societies – they spend more time at home and less time in paid employment than men.[37] Similarly, in many countries, other forms of precarious employment – e.g. short-term contracts or subcontracting,[38] or even working in the absence of a written contract – are more prevalent among women because of their unpaid care work responsibilities. Women are more likely to suffer from growing competitive pressures and cost-saving strategies by employers, which is associated with a lack of security, limited possibilities for training and career advancement, and inadequate social security coverage in terms of old-age pensions, sickness insurance and maternity protection.[39]

Particularly relevant is women's higher participation in the informal economy than men's, as discussed previously. Informality in the workplace may come in various forms, but is usually reflected by the absence of a written contract and/or non-entitlement to standard forms of insurance, like pensions and health care, including non-entitlement to sick leave, maternity leave, annual holidays, etc. The informal sector is more prevalent in less-productive, low-pay sectors, where women already account for a larger share of the workforce than men. Moreover, regulations on remuneration and working standards often do not apply in the informal sector, further aggravating the position of women, with long working hours, poor workplace conditions, job insecurity, fewer opportunities for personal development and a lack of social protection.[40]

3 METHODOLOGY

3 METHODOLOGY

This chapter discusses the methodology and data sources used by the study. The study analyses the gender pay gap and other labour-market inequalities in the region 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 region.

3.1 Gender pay gap

The 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:[41]

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

Net wages are widely used as a measure of pay. In the subsequent analysis, the difference between the log hourly wages of women and men is used to calculate the hourly gender pay gap, which is equivalent to the above formula. This simple calculation will produce the **unadjusted** or **raw** pay gap. This gender pay gap does not incorporate how women's and men's different individual and labour-market characteristics explain the pay differential.

Mincerian earnings function is a popular way of analysing individual earnings. In its most generic form,[42] the Mincerian earnings function models the natural logarithm of hourly earnings as a function of the years or levels of education and the years of potential labour-market experience. For modelling purposes, age is included with its quadratic term as well. The function is rooted in Becker's human capital theory, whereby an individual's wage rate is a reflection of their productive capacity, i.e. it depends on the individual's human capital characteristics, accumulated through education, time and on-the-job training, which, in turn, affect productivity.[43]

It is customary for the Mincerian earnings function to include gender as an explanatory variable of the wage rate, to account for the potential differences between the log hourly wages of women and men. Hence, the Mincerian earnings function takes its most generic form as:

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

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).[44] The coefficient β_i measures the **adjusted** gender pay gap. If the vector of explanatory variables X'_t is not included, then β_i would measure the **unadjusted** gender pay gap, i.e. the calculation would estimate only a simple difference of logged mean wages. The term ε_i represents the idiosyncratic error, capturing all influences on the gender pay gap not captured by observable characteristics.

In this work, first, a regression estimate of the raw pay gap is performed by employing Equation 1, but with gender being the only explanatory variable. Age and its square and education are then added, represented by three levels – (1) primary or lower, (2) secondary and (3) tertiary or higher – as individual characteristics to explain the gender pay gap. Information on work experience or tenure was not available from the surveys used for this study. Following a discussion about how marriage may affect the gender pay gap, marital status is added, represented by two levels: (1) married and (2) single and other individuals. Occupations (reference category: managers) and sectors (reference category: agriculture) are considered, and an indicator of whether or not a job is undertaken with or without written contract (formality status), all to reflect labour-market characteristics.

For estimation purposes, studies have frequently relied on ordinary least squares (OLS) estimates. OLS estimates are based only on the sample of employed workers for whom a wage is observed.[45] Hence, this simple approach compares individuals at the mean of the distribution, i.e. the pay of the "average" man compared with that of the "average" woman, given their characteristics.

Therefore, the empirical model used throughout this study is as follows:

$$ln(y_t) = \alpha + \beta_1 gender_i + \beta_2 age_i + \beta_3 age\_squares_i + \beta_4 education_i + \beta_5 marrital\_status_i + \beta_6 sectors_l + \beta_7 occupations_i + \beta_8 informal\_job_i + \varepsilon_i \quad (2)$$

where notations are self-explanatory, while further details about variables are given in chapter 3.4. β_1 from this full model, represented by Equation 2, is taken as the adjusted gender pay gap. An OLS estimate was used for this model.

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.[46] 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,[47] which is based on conditional quantile regressions, is followed.

3.2 Decomposition of the gender pay gap and quantile regressions

The sociologist and demographer Evelyn Kitagawa first introduced decomposition techniques in 1955.[48] The standard decomposition technique, widely applied to the gender pay gap, was introduced to economics by Oaxaca[49] and Blinder.[50] 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.[51] The decomposition of interest here could be written as:

$$\bar{y}^M - \bar{y}^F = (\bar{X}^M - \bar{X}^F)\hat{\theta}_k^M + \bar{X}^{F'}(\hat{\theta}_k^M - \hat{\theta}_k^F) \quad (3)$$

where $\bar{y}^M$ and $\bar{y}^F$ are the observed averages of log hourly wages of women and men, respectively; $\bar{X}^M$ and $\bar{X}^F$ are the averages of individual characteristics; and $\hat{\theta}_k^M$ and $\hat{\theta}_k^F$ are the regression coefficients for the model explaining hourly wages, estimated separately for women and men. The left side of Equation 3 refers to the raw gender pay gaps, the first term on the right side $((\bar{X}^M - \bar{X}^F)\hat{\theta}_k^M)$ refers to the explained part, while the last term $(\bar{X}^{F'}(\hat{\theta}_k^M - \hat{\theta}_k^F))$ refers to the unexplained part. Such decomposition is called two-way decomposition. In this study, a three-way decomposition is conducted that divides the pay difference into an explained part, an unexplained part, and interaction between the explained and unexplained part.

Although a very popular and much used method in the literature, the Oaxaca-Blinder decomposition method has been the subject of much scrutiny and criticism. One of the problems with the Oaxaca–Blinder method is that it considers the pay decomposition only at the mean, meaning that it does not catch potential variations in the different effects on the pay distribution.[52] As a result, the decomposition literature has seen an evolution and various new techniques have been developed.[53] Machado and Mata,[54] Firpo et al.[55] and Chernozhukov et al.[56] have made important contributions to decomposing the pay gap at different points along the pay distribution. Such analysis was beyond the scope of this study.

3.3 Other labour-market inequalities

Although the analysis focuses on the gender pay gaps, other indicators relating to gender inequalities in labour-markets in ESA 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.) and not percentages. 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" and not percentages. 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.

Related to the role of women in the household and as caregivers, employment rates and their differentiation by gender are calculated, by considering a few different household types. Specifically, the following are observed: single-person households, households of more than one adult without children and households with dependent children, which is further subdivided by the number of dependent children per household. Likewise, employment outcomes by the marital status of women and men are observed. The underlying assumption is that family circumstances, especially the presence of children in a household, will affect the labour-market behaviour of the mother, primarily, potentially leading to larger gender employment gaps.

Note that negative values of gaps generally indicate a disadvantageous position for women.

Some calculations related to horizontal and vertical segregation are performed by gender. Horizontal gender segregation is analysed using the Duncan Segregation Index.[57] 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.[58] 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.

3.4 Data

Latest available household or labour force survey data are used. All surveys are nationally representative. Table 3.1 presents information about the size of each survey in terms of the number of households, individuals, individuals of working age and individuals who were in wage employment.

TABLE 3.1
Data sources

Country	Survey	Data source[59]	Number of households	Number of individuals	Number of individuals aged 15–64 years	Number of wage employees*
Ethiopia	2021 National Labour Force Survey	Ethiopian Statistical Service	43,3356	174,615	101,665	20,5992
Kenya	Continuous Household Survey 2019	Kenya National Bureau of Statistics	20,289	86,647	46,995	9,291
Malawi	Fifth Integrated Household Survey 2019–2020	National Statistical Office of Malawi	11,343	50,476	26,296	2,689
Mauritius	Continuous Multi-Purpose Household Survey 2019	Statistics Mauritius	11,280	37,382	25,179	12,361
Mozambique	Inquérito sobre Orçamento Familiar – Household Budget Survey 2019/20	Instituto Nacional De Estatística	13,333	64,519	32,778	5,220
Namibia	Household Income and Expenditure Survey 2015/2016	Namibia Statistic Agency	10,091	41,583	23,372	7,333
Rwanda	Labour Force Survey 2022	National Institute of Statistics of Rwanda	16,572	70,424	41,263	12,918
South Africa	Labour Force Survey 2019	Statistics South Africa	80,855	270,358	168,988	47,484
Tanzania	Integrated Labour Force Survey (2020–2021)	National Bureau of Statistics Tanzania	11,517	51,751	27,760	4,346
Uganda	National Panel Survey (2019–2020)	Uganda Bureau of Statistics	3,098	16,076	8,039	1,236

Source: Compiled by the author.
**With non-zero, non-missing wages and with non-zero working hours.*

The key variables used in the analysis – employment status and wages – are calculated based on the way that the survey asked related questions and, in an attempt, to allow cross-country comparison. The calculated employment rates were compared with the World Development Indicators published by the World Bank in all the respective countries and the data were very similar.[60] The pay variable (wage per hour worked) is mainly defined using the basic wage adjusted for the period it referred to (in two cases it referred to a monthly wage, while, in the other cases, other periods were also defined), divided by the number of hours worked, which was given as either the number of hours worked in the week preceding the interview or the average number of hours.

The other variables follow the same or nearly the same definitions, as follows:

- **Gender** is defined as 1 for women and 0 for men.
- **Education** is defined using three levels: 1 = primary education or lower; 2 = secondary education; and 3 = tertiary education or higher. Wherever other or interim degrees

were provided in the data, the specifics of the country's educational system were investigated to arrive at the most appropriate classification.

- **Age** is expressed in completed years in the regression estimates, while in the descriptive tables three age groups are defined: youth (15–24 years), adults (25–49 years) and older adults (50–64 years).

- **Marital status** is defined as 1 for married individuals (those in monogamous or polygamous marriages, or those living in partnerships) and 0 for all others (individuals who are single, divorced, widowed, etc.).

- **Sectors** are defined using the one-digit Statistical Classification of Economic Activities in the European Community (NACE) Rev.2 classification.[61] Although there were a few deviations from the standard 21 sectors. In South Africa, there is aggregation of NACE into 11 groups instead of the standard 21 groups.

- **Occupations** are defined through one-digit International Standard Classification of Occupations 2008 (ISCO-08)[62] classification. There are small deviations from the standard 10 sectors in Malawi where there is a seven-group structure.

- **Informal jobs** are defined as 1 for an oral/verbal employment contract and 0 otherwise (written contract), or when such information was not available as 1 for cases when pension and/or health contributions were not paid (the worker was not insured in a standard manner) and 0 otherwise.

All calculations make use of the survey weights, and so all findings and conclusions relate to the population level.

4 MAIN FINDINGS

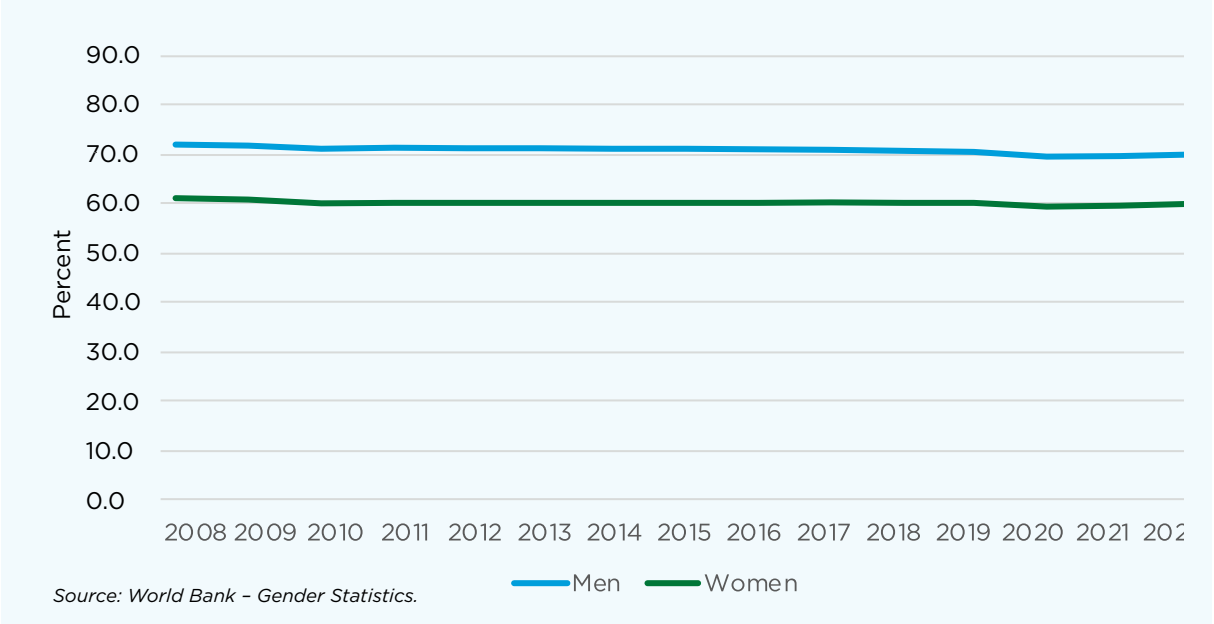
This chapter presents the main findings of the study. First, it presents general trends in the ESA labour-market using data from the World Bank. Second, it presents the combined results for the indicators of interest for the 10 countries in ESA that are the spotlight of the study. In terms of population, these countries account for 62.5 per cent of the entire ESA region. Third, gender pay gaps and its determinants are discussed. Fourth, the section presents other labour-market inequalities, specifically, gender employment gaps, and occupational and sectoral segregation by gender.

4.1 General labour-market trends

The employment rate of women (aged 15+ years) in Africa in 2022 was 59.5 per cent, while that of men (aged 15+ years) was 69.7 per cent, and thus the gender employment gap was 10.2 p.p. (**Figure 4.1**). Over time, both women's and men's employment rates have remained relatively stable and hence the gender employment gap has generally been the same over time. However, as shown in **Figure 4.1**, a very slight downwards trend in men's employment rates and a very slight upwards trend in women's employment rates can be observed, which may indicate the beginnings of a very gradual reduction in the gender employment gap.

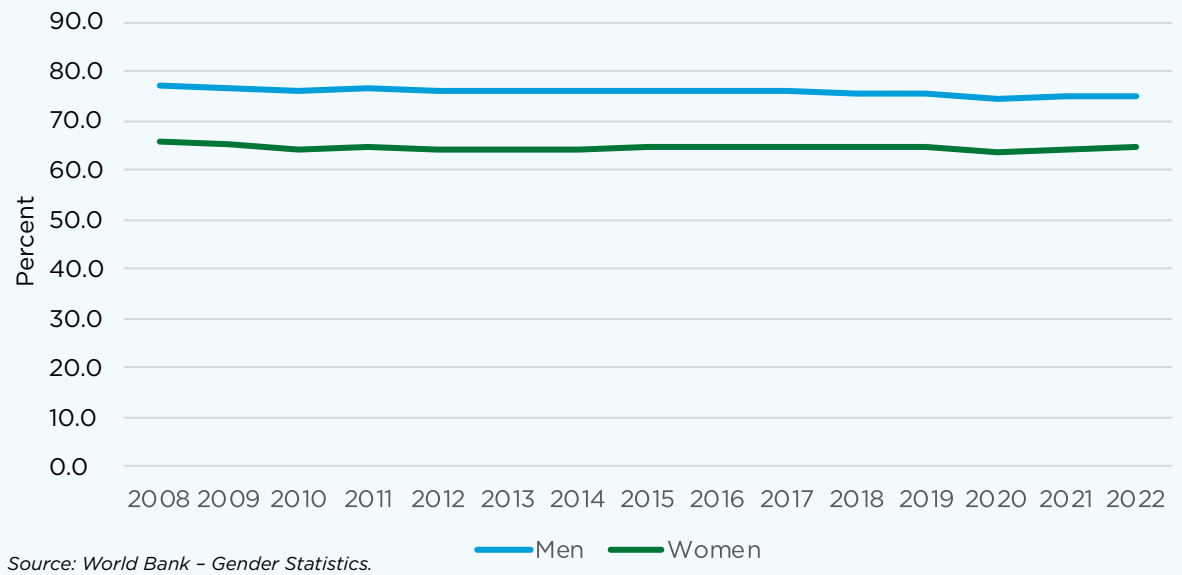
The same trend is observed for labour force participation rates by gender (**Figure 4.2**). In 2022, the gender labour force participation gap was 10.3 p.p., while labour force participation rates – for both women and men –v are about 5 p.p. higher than the employment rates, suggesting that unemployment is generally low in the region.

FIGURE 4.1
Employment rates (population aged 15+ years) in ESA, by gender



Source: World Bank – Gender Statistics.

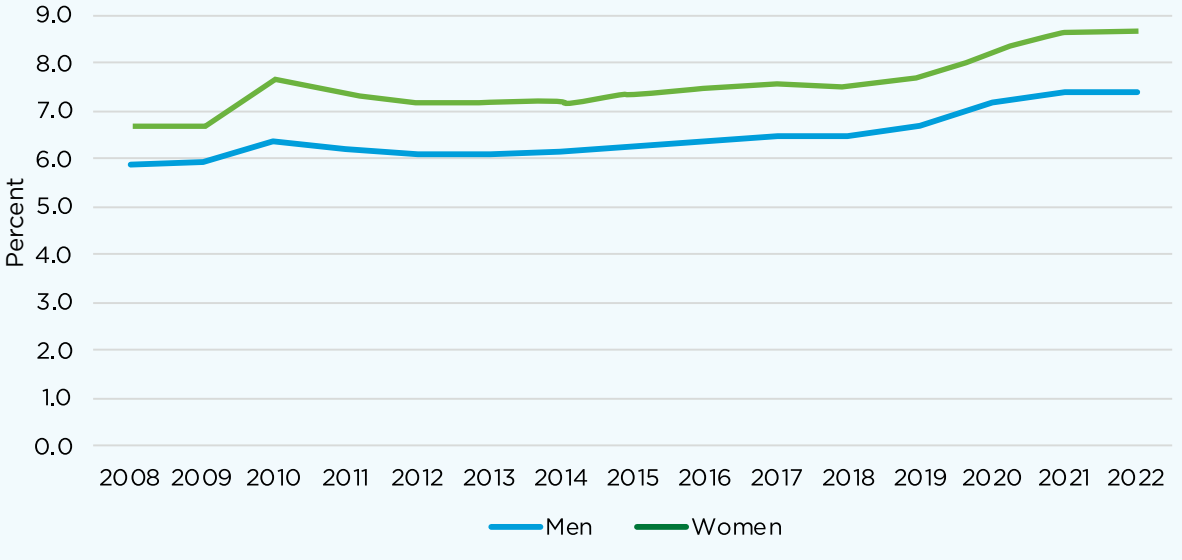
FIGURE 4.2
Labour force participation rates (population aged 15+ years) in ESA, by gender



Source: World Bank – Gender Statistics.

The unemployment rate in the region hovered around 7 per cent in 2022 (**Figure 4.3**). Women had only a slightly higher unemployment rate, of 8.5 per cent, than men (7.4 per cent), implying a gender unemployment gap of 1.1 p.p. Hence, this suggests that the main source of women's economic disadvantages in the ESA region stems from women's lack of participation in the labour force, rather than from them being unable to find employment when actively searching for a job.

FIGURE 4.3
Unemployment rates (population aged 15+ years) in ESA, by gender

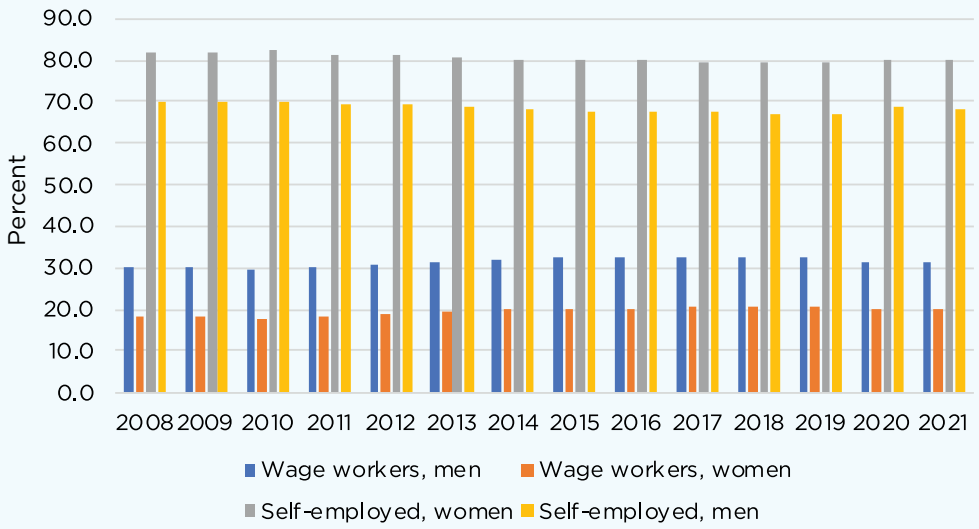


Source: World Bank – Gender Statistics.

Figure 4.4 presents the percentages of those employed in ESA by employment status (i.e. wage and salaried employees versus self-employed) and gender. However, the self-employed group cannot be disaggregated into employers, own-account workers and contributing family workers. The graph reveals that a higher proportion of employed men than employed women are wage employees and that this proportion has increased slightly over time. A higher proportion of employed women than men are classified as self-employed, possibly because a higher proportion of women work as contributing family members in ESA.

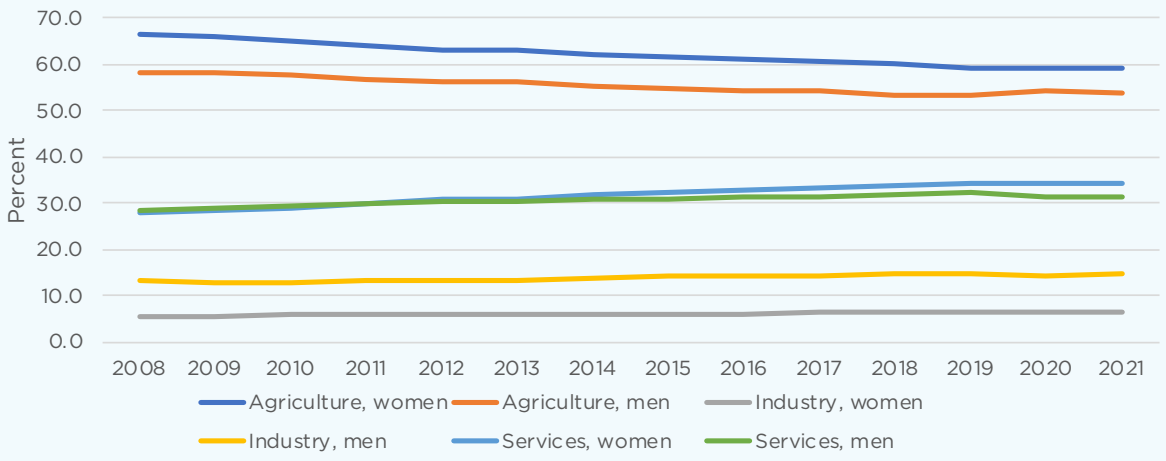
A bigger percentage of working women work in agriculture as compared to working men (**Figure 4.5**), which could also be an outcome of women being more likely to work as contributing family worker. **Figure 4.5** also shows, however, that over time the share of workers in agriculture in ESA has

FIGURE 4.4
Percentage of those employed, by employment status and by gender



Source: World Bank – Gender Statistics.

FIGURE 4.5
Percentage of those employed, by sector and by gender



Source: World Bank – Gender Statistics.

steadily declined, and that this decline has been slightly more marked for women. In turn, the share of women employed in services has increased more than that of men, such that the proportion of employed women working in services has overtaken that of men. This suggests that, while the restructuring of the ESA economy has been rather slow, this restructuring has led to larger changes in women's economic outcomes when compared to men's economic outcomes.

This brief snapshot of the labour-market in ESA reveals that women experience a disadvantaged position, observed through the persistent gender participation and employment gaps.

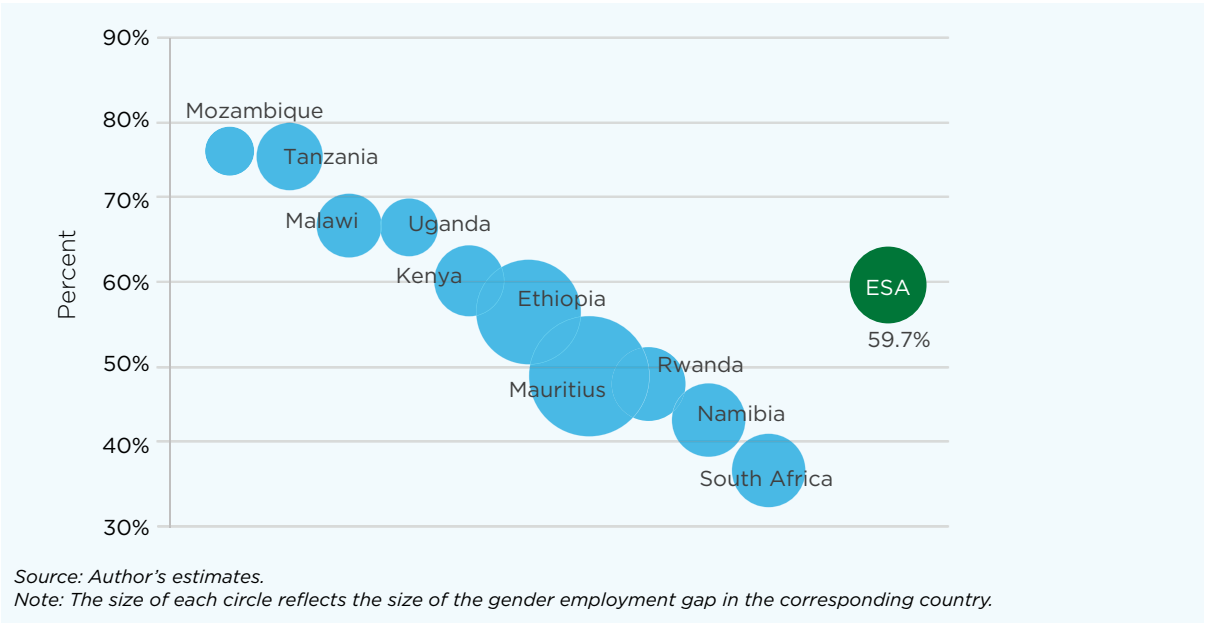
4.2 Women's employment

From this point onward, any references to ESA refer to 10 countries included in the study. Some of the graphs that follow will present an estimate for ESA, calculated as the weighted average of the results of the 10 countries. The working-age population (aged 15–64 years) is used to obtain weighted averages, to arrive at an ESA estimate. Women's employment rate in these 10 countries stands at 59.7 per cent, which is very close to the employment rate for the entire region presented in **Figure 4.1**. Similarly, the gender employment gap of 11.9 p.p. in the 10 countries is close to the gender employment gap in the region at 10.2 p.p. in 2022. This, inter alia, suggests that the data from the 10 countries analysed provide a reliable representation of the region as a whole.

Women in ESA have heterogeneous employment rates, ranging from 76.1 per cent in Mozambique to 37 per cent in South Africa. Likewise, the gender employment gap, being the difference between the employment rate for women and for men, expressed in p.p., varies from a fairly small 5 p.p. in Mozambique to a very large 29.4 p.p. in Mauritius. However, this signifies that, throughout the group of countries analysed, women exhibit lower employment rates than men, hence exemplifying a disadvantaged position in the labour-market. This is related to economic opportunities, economic structures, and societal norms, prejudices and stereotypes.

In **Figure 4.6**, the position of each country on the vertical line represents the employment rate among women, while the size of each circle represents the gender employment gap. For countries in the ESA region, the following general pattern can be seen: the larger the employment rate, the smaller the gender employment gap.

FIGURE 4.6
Women's employment rate and gender employment gap, by country

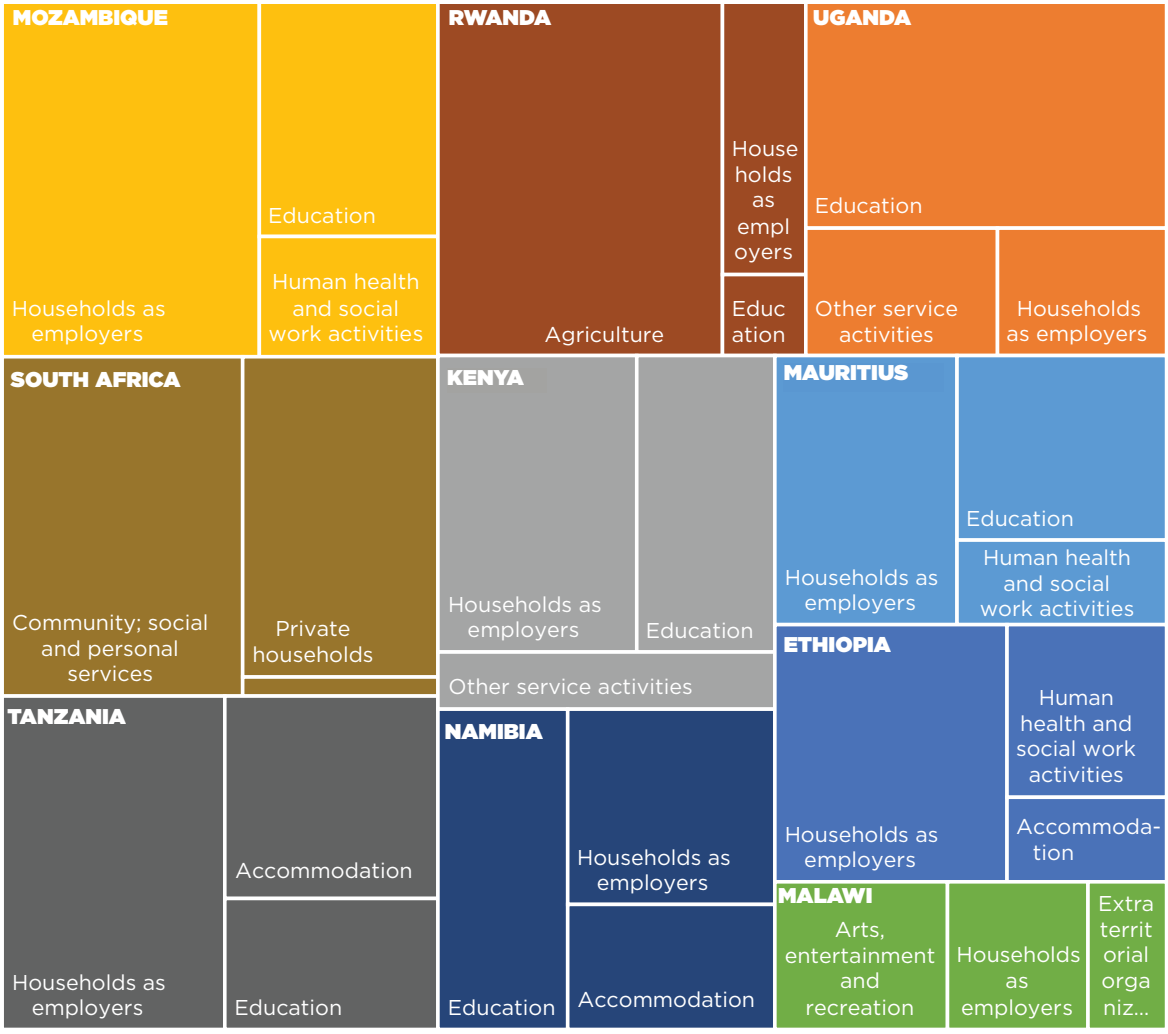


Source: Author's estimates.
Note: The size of each circle reflects the size of the gender employment gap in the corresponding country.

This is most obvious for Mozambique and Tanzania, the two countries with, in descending order, the highest employment rates among women, but also for Malawi, Uganda and Kenya, which fall in the middle of the graph, in descending order. Mauritius and Ethiopia have mid to low female employment rates and the largest gender employment gaps, while Rwanda, Namibia and South Africa, which have the lowest women's employment rates, have medium-sized gender employment gaps. Such a correlation provides some support to the observation that the more economically powerful the women – here captured through employment rates – the closer they are in terms of labour-market activity to men, securing a position of lower gender inequality.

Figure 4.7 shows the top three sectors in which women are overrepresented compared with men, by country. Overrepresentation is taken from the relative share of sectoral employment in total employment by gender, with differences expressed in p.p. The sectors with the largest difference are considered the top three. Each country in **Figure 4.7** is represented by a different colour, while the size of the rectangle used to represent each country depicts the extent of that country's sectoral "femininity", in a relative sense, i.e.

FIGURE 4.7
The three most "feminine" sectors, by country



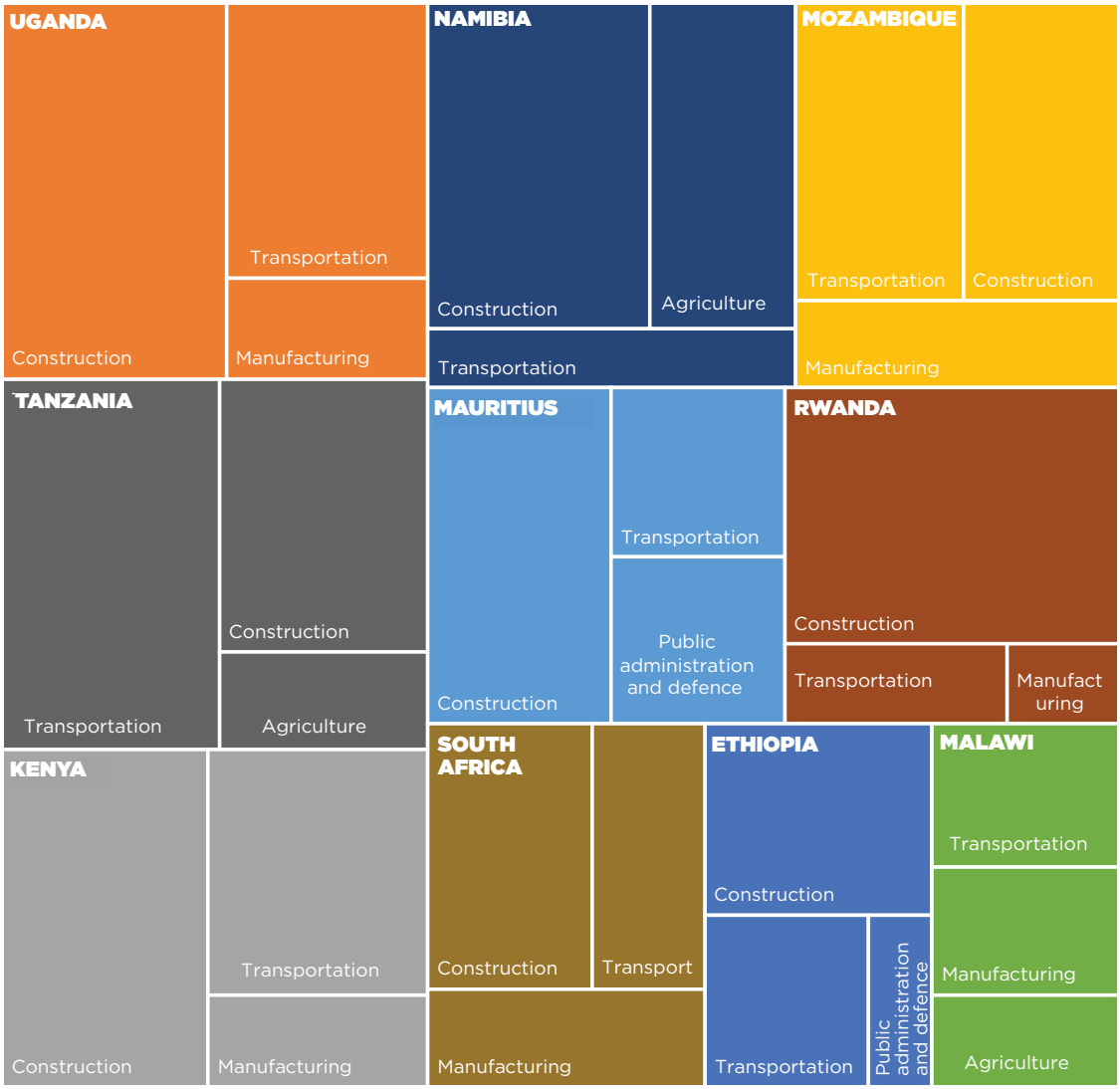
Source: Author's estimates.
Note: A "feminine" sector refers to a sector in which the share of employed women is larger than the share of employed men.

compared with other countries. For instance, Mozambique is positioned first and is represented by the largest area in **Figure 4.7**, signifying that women in the three sectors listed are overrepresented by a total p.p. value that is larger than that for any of the other countries analysed. Malawi is positioned last and is represented by the smallest area in **Figure 4.7**, signifying that women in the three sectors listed are overrepresented by a total p.p. value that is smaller than that for any of the other countries analysed.

The "feminine" sectors that are most commonly in the top three in ESA are care sectors – activities of households as employers (in all 10 countries), education (seven countries) and human health and social work activities (four countries). Of all the countries, Rwanda is an atypical case, as most of the gender employment gap among the top three (and overall among all) sectors is derived from agriculture.

Similarly, **Figure 4.8** presents the top three sectors in which men are overrepresented compared with women by country. As shown, overall, Uganda is positioned first,

FIGURE 4.8
The three most "masculine" sectors, by country



Source: Author's estimates.
Note: A "masculine" sector refers to a sector in which the share of employed men is larger than the share of employed women.

signifying that men in the three sectors listed are overrepresented by a total p.p. value that is larger than that for any of the other countries analysed, while the smallest p.p. difference among the countries analysed is again Malawi. The "masculine" sectors that are most commonly in the top three in ESA are transportation and storage (in all 10 countries), construction (in nine countries) and manufacturing (in six countries). It is interesting to note that, while agriculture is found in the top three "feminine" sectors in Rwanda, it is in the top three "masculine" sectors in Malawi, Namibia and Tanzania. Public administration, while most frequently "neutral", appears in two countries as one of the top three "masculine" sectors: in Ethiopia and Mauritius.

Figure 4.9 shows the top three sectors by employment in each country, and classifies these sectors as "masculine", "feminine" or "neutral". A sector is considered "masculine" if the share of employed men in that sector exceeds the share of employed women in the same sector by more than 10 per cent, and vice versa for the definition of a "feminine" sector. Any difference of less than 10 per cent is considered to represent a "neutral" sector. **Figure 4.9** shows that majority of the top three sectors are "feminine" sectors. This suggests that women are generally overrepresented in the sectors that employ most workers in ESA. In six of the 10 countries, agriculture is among the top three sectors, followed by education (in five countries). The top ranking of agriculture shows that ESA countries are still heavily reliant on the primary sector, which

FIGURE 4.9
Gender domination in the top three sectors characterized by employment, by country

SECTOR	Ethiopia	Kenya	Malawi	Mauritius	Mozambique	Namibia	Rwanda	Uganda	Tanzania	South Africa
Households as employers	♀	♀	♀		♀	♀	♀			
Construction	♂						♂			
Agriculture		♀	♂			♂	♀	⚥	♂	
Wholesale and retail trade				♀		♀				⚥
Manufacturing				⚥						
Public Administration & Defence				♂	⚥					
Community										♀
Other service activities			♀					♀		
Education	⚥	♀			♀			♀	♀	
Accommodation										
Financial										♂
Transportation									♂	

COUNTRY

♀ Feminine Sector ♂ Masculine Sector ⚥ Neutral Sector

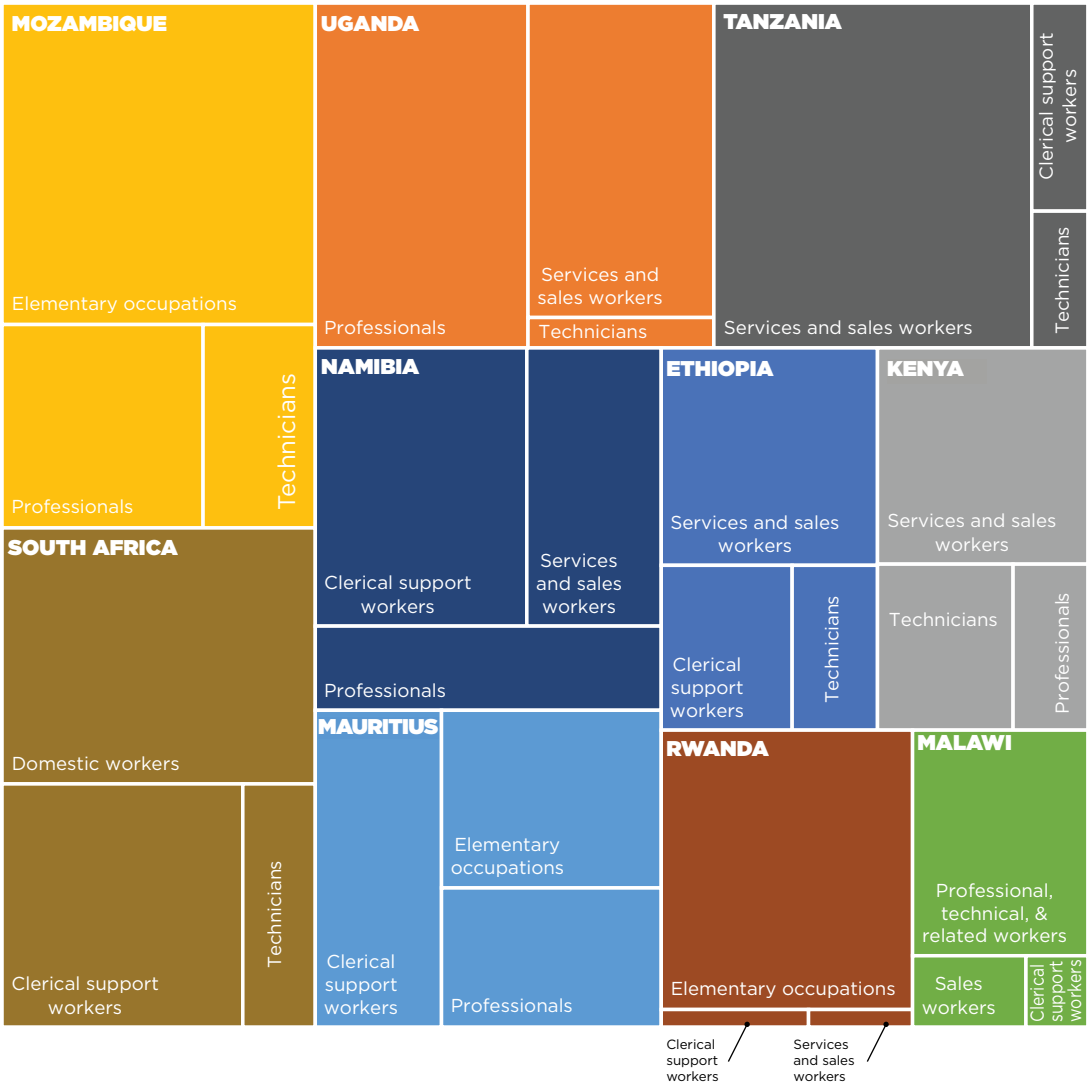
Source: Author's estimates.

is generally a low-pay and low-productivity sector.

The same analysis is performed but by occupation. **Figure 4.10** presents the top three occupations in which women are overrepresented compared with men by country. The "feminine" occupations that are most commonly in the top three in ESA are clerical support workers (in seven countries), technicians and associate professionals (in seven countries), and service and sales workers (in six countries). Two of these occupations are relatively low skilled, while the technicians and associated professionals occupation is high skilled.

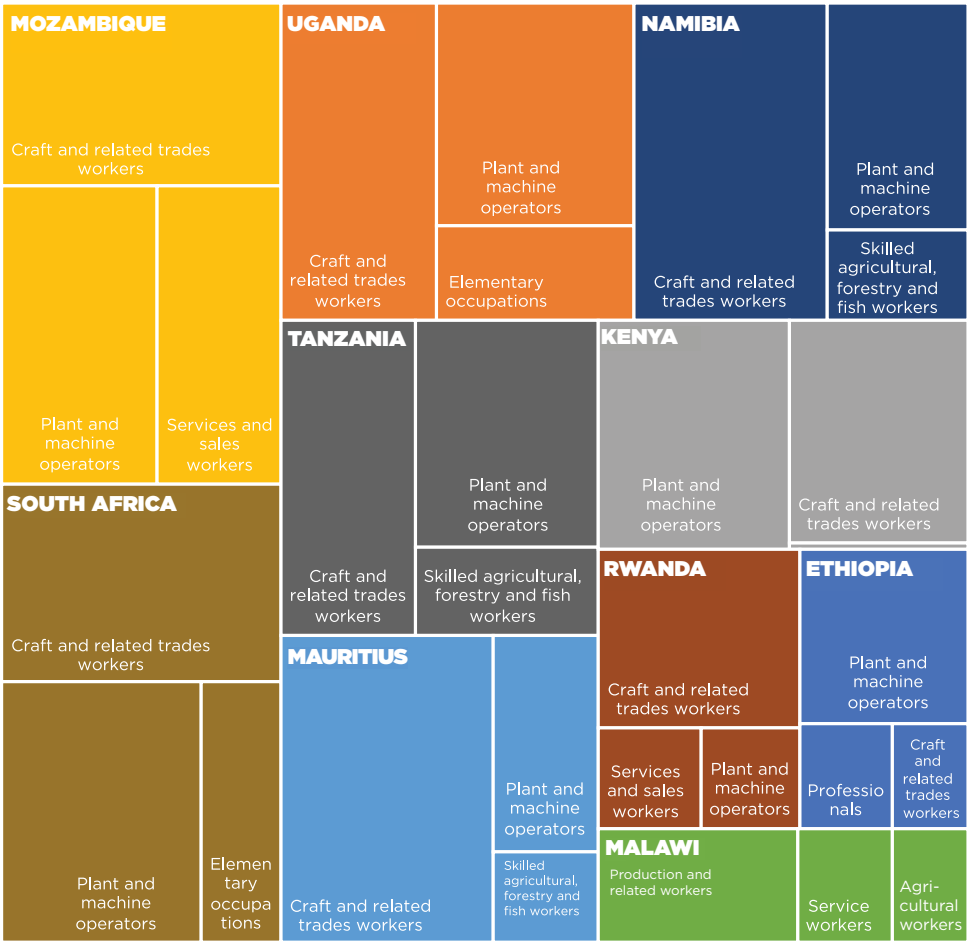
Figure 4.11 presents the top three occupations in which men are overrepresented compared with women by country. The "masculine" occupations that are most commonly in the top three in ESA are plant and machine operators and assemblers (in all countries), craft and related trades workers (in nine countries), and skilled agricultural, forestry and fish workers (in four countries).

FIGURE 4.10
The three most "feminine" occupations, by country



Source: Author's estimates.
Note: A "feminine" occupation refers to an occupation in which the share of employed women is larger than the share of employed.

FIGURE 4.11
The three most "masculine" occupations, by country



Source: Author's estimates.
Note: A "masculine" occupation refers to an occupation in which the share of employed men is larger than the share of employed women.

Figure 4.12 presents the top three occupations by employment in each country, and classifies these sectors as "masculine", "feminine" or "neutral". In general, "feminine" occupations dominate, the top occupations. This suggests that women are generally overrepresented in the occupations that employ most workers in ESA. In nine countries, elementary occupations are among the top three occupations, followed by services and sales workers (in eight countries), again reflecting the structure of the ESA countries' economies, in which low-pay, low-productivity jobs dominate. This shows that a very small proportion of the population is employed in high-skill occupations.

Figure 4.13 shows the shares of women and men employed in the highest-ranked occupations by skill, which includes legislators, high officials and managers. As shown, a lower share of women is employed in managerial occupations than men for the entire region – 2.2 per cent versus 2.9 per cent – with the case being the same in nine out of the 10 countries, lending some support to the glass ceiling effect. In Namibia, the share of employed women in managerial positions is higher than that of employed men. Moreover, regardless of gender, the share of workers in managerial occupations in Namibia is higher than in any of the other countries analysed.

FIGURE 4.12

Gender domination in the top three occupations, by employment

OCCUPATIONS	Ethiopia	Kenya	Malawi	Mauritius	Mozambique	Namibia	Rwanda	Uganda	Tanzania	South Africa
Elementary occupations	⚥	⚥		♀	♀	⚥	♀	♂	⚥	♂
Technicians	♀									
Professionals	♂		♀	♀	♀		⚥	♀		
Service and sales workers		♀	♂	⚥	♂	♀		♀	♀	⚥
Technicians		♀								
Production and related workers			♂							
Clerical support workers						♀				♀
Craft and trades workers							♂		⚥	

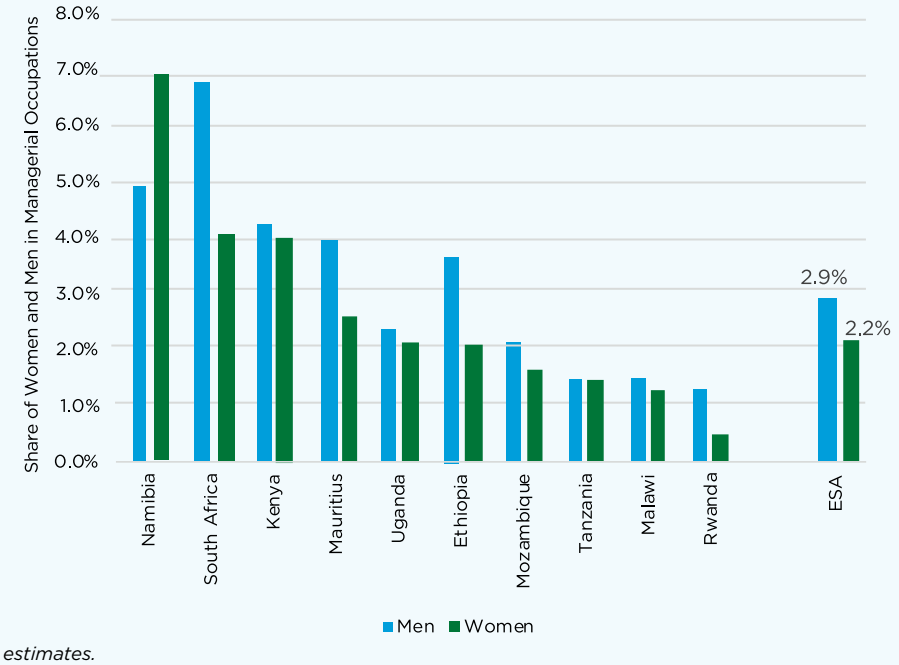
COUNTRY

♀ Feminine Sector ♂ Masculine Sector ⚥ Neutral Sector

Source: Author's estimates.Source: Author's estimates.

FIGURE 4.13

Shares of women and men employed as legislators, high officials and managers, by country and by gender



Source: Author's estimates.

Figure 4.14 looks at informal wage employment by gender in the ESA countries; it should be noted that there is no way of identifying wage employees who work without a written contract and/or without workers' rights to a pension and health insurance from the Mozambique data set. From the limited information available, it can be observed that women dominate in informal employment in Malawi, while men dominate in Ethiopia, Namibia and Uganda. In the other six countries, informal employment appears to be neutral in respect to gender.

4.3 Raw and adjusted hourly gender pay gaps

The raw hourly gender pay gap – the pure difference in the average hourly wages of women and men, expressed as a percentage of the average hourly men's wage – varies widely among countries in ESA. It ranges from a very large 30.2 per cent gap in Ethiopia to no gaps in Mozambique and Tanzania (**Figure 4.15**). For ESA as a whole, the raw gender pay gap is calculated at 18.8 per cent, which is in line with

FIGURE 4.14
Gender domination in informal wage employment, by country

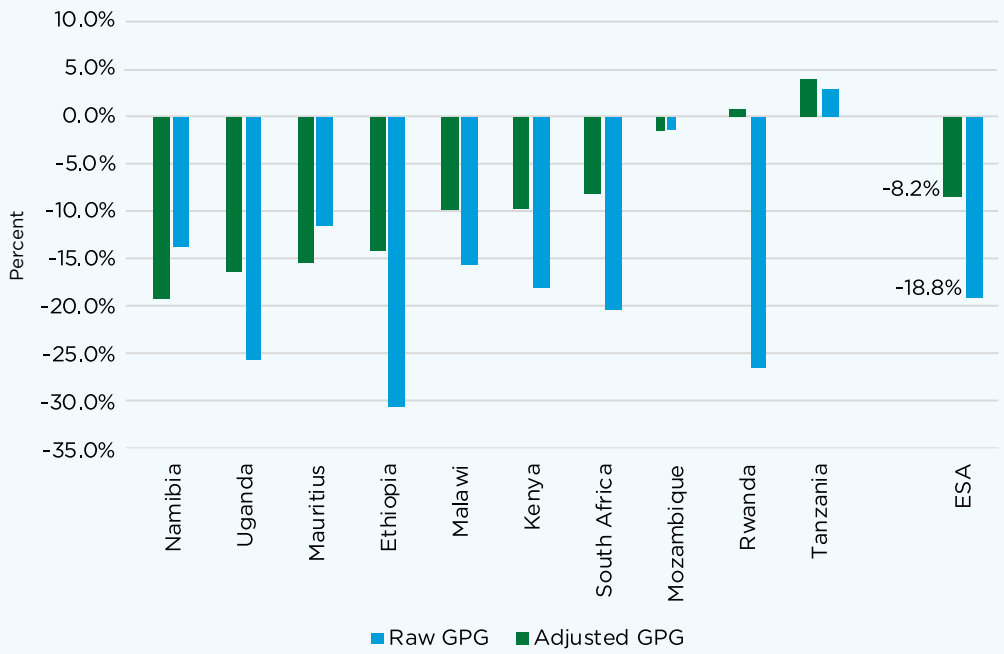
EMPLOYMENT TYPE	Ethiopia	Kenya	Malawi	Mauritius	Namibia	Rwanda	Uganda	Tanzania	S. Africa
Formal	⚥	⚥	♂	⚥	⚥	♂	♀	⚥	⚥
Informal	♂	⚥	♀	⚥	♂	⚥	♂	⚥	⚥

COUNTRY

♀ Feminine Sector ♂ Masculine Sector ⚥ Neutral Sector

Source: Author's estimates.

FIGURE 4.15
Raw and adjusted hourly gender pay gap, by country



Source: Author's estimates.
Note: GPG stands for gender pay gap.

global estimates. The ILO Global Wage Report 2018/19 found that the global raw gender pay gap is 20 per cent.[63]

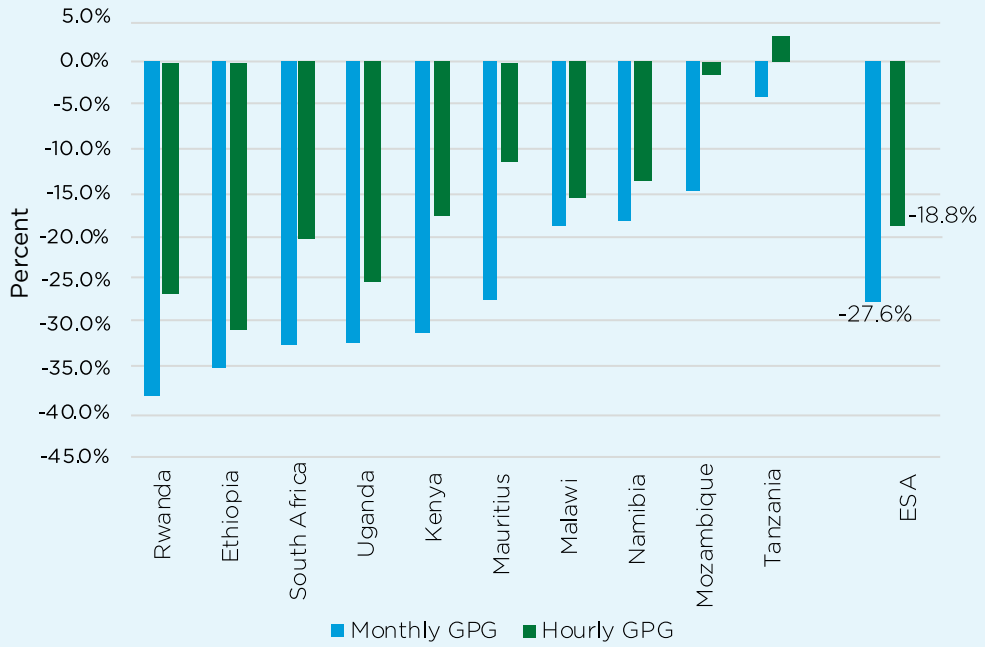
Adjusting the gender pay gap for individual and labour market characteristics reduces the gender pay gap in six countries - Uganda, Ethiopia, Malawi, Kenya, South Africa, and Rwanda. However, there is variation by country. In Rwanda, the adjusted gender pay gap is statistically insignificant. In Mozambique and Tanzania, the raw gap is statistically insignificant at a 5 per cent significance level, and is hence considered zero. In two countries – Mauritius and Namibia – the gender pay gaps increase when adjusted, by 3.8 p.p. and 5.3 p.p., respectively. This shows that working women in these countries have better individual and job characteristics than working men. Considering ESA region as a whole, the adjusted gender pay gap is 8.2 per cent, which is 10.6 p.p. lower than the raw gender pay gap.

The general patterns documented for ESA in calculating the adjusted gender pay gap are as follows. Wages grow with age concavely, which means that, after a certain point, per additional year of age, the wage increases slowly. The age at which this slow down begins varies, ranging from the early 40s to the early 60s. For the estimates here, in the absence of data on work experience, age is considered to capture workers' accumulation of knowledge over time, although unfortunately it cannot capture the fact that some individuals face spells of unemployment and/or career interruptions, especially due to childbirth and childrearing. The second finding is that education generally pays off, i.e. tertiary education attainment leads to higher wages than primary education.

Marriage is found to positively affect labour-market outcomes, i.e. married individuals are generally found to be better paid than single individuals, although in some countries marriage does not make a statistical difference. Most sectors pay a higher wage than agriculture, which is important, considering that agriculture is the largest sector in most countries. Importantly, the addition of sectors in the Mincerian wage regressions reduced the size of the gender pay gap. Even more importantly is that, in this analysis, the addition of sectors explained the gender pay gap, even in cases where individual characteristics and/or occupations failed to explain the pay gap. The addition of sectors and/or occupations leads to a reduction in the size of the coefficients for education and age, which shows that occupational segregation is prevalent in all countries. Evidence on the role of informal employment in determining the gender pay gap is mixed; in only some countries do informal jobs lead to lower remuneration than formal ones.

As shown in **Figure 4.16**, for ESA as a whole and for all countries, the hourly gender pay gap is smaller than the monthly one, suggesting that women, on average, work shorter hours than men in paid work. This reflects women's disproportionate unpaid care work responsibilities at home, as discussed in **Box 4.1**. Women working shorter hours explains different proportions of the monthly pay gap in the different countries, ranging from explaining the gap in its entirety in Mozambique – where the gap reduces from a monthly pay gap of 14.9 per cent to an hourly pay gap of zero (or a statistically insignificant 1.3 per cent) – to explaining only 3.5 p.p. of the gap in Malawi – where the gap reduces from a monthly pay gap of 19 per cent to an hourly pay gap of 15.5 per cent.

FIGURE 4.16
Monthly and hourly gender pay gaps, by country



Source: Author's estimates.
Note: GPG, gender pay gap.

BOX 4.1
Time-use gaps by gender and unpaid care work in Tanzania

Women and men differ in how they use their time during the day, reflecting differences in cultural norms, stereotypes and prejudices related to gender, and potential differences in individual preferences, affecting their labour-market attachment. The table below shows the daily time usage of women and men in Tanzania, using data from the Time Use Survey module of the 2020–2021 Integrated Labour Force Survey[64] of Tanzania.

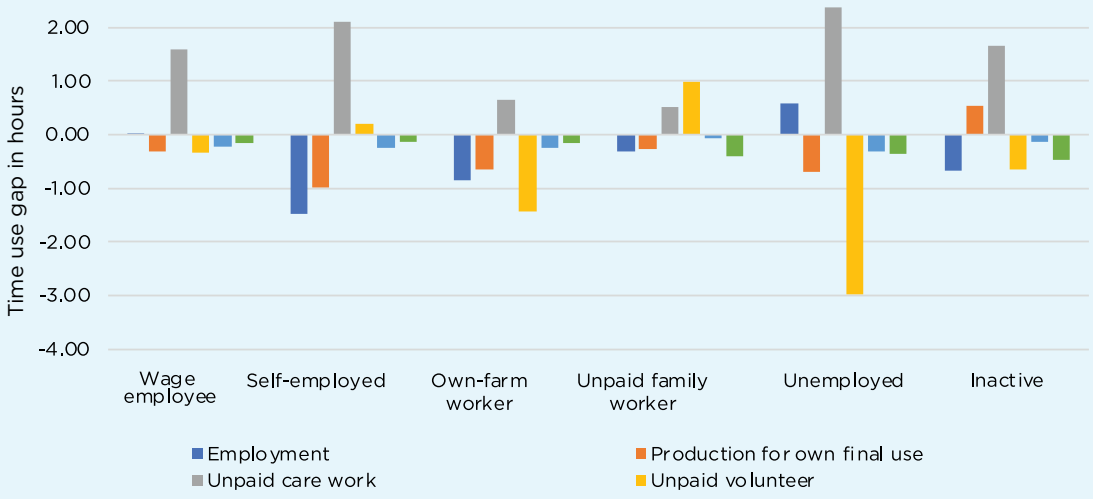
Three time-usage patterns stand out. First, women devote a significantly larger amount of time to unpaid care activities, which include unpaid domestic and direct care activities, than men. On average, women spend 2 hours 24 minutes and men spend 1 hour 30 minutes on unpaid domestic work per day, leading to a gender time-use gap, measured as the difference between the time spent by women and by men on an activity, of 54 minutes. Women spend 1 hour 18 minutes and men spend 48 minutes on unpaid direct care activities per day on average, leading to a time-use gap of 24 minutes. The time-use gap for unpaid care work overall is 1 hour 18 minutes.

Second, women spend much less time on employment and related activities and on the production of goods for own final use than men: men spend 42 minutes more on average on employment and related activities and 24 minutes more on average on the production of goods for own final use than women every day. Third, women on average spend 6 minutes less per day than men on socializing and communication, community participation and religious practice, and on culture, leisure, mass media and sports practices.

Average number of minutes spent daily on activities in Tanzania, by gender

Activity	Men	Women	Gender time-use gap
Employment and related activities	252	210	42
Production of goods for own final use	108	90	18
Unpaid care work (a + b)	138	222	–84
a. Unpaid domestic services for household and family members	90	144	–54
b. Unpaid direct caregiving services for household and family members	48	78	–30
Unpaid volunteer, trainee and other unpaid work	120	72	48
Learning	246	270	–24
Socializing and communication, community participation and religious practice	102	96	6
Culture, leisure, mass media and sports practices	84	78	6
Self-care and maintenance	390	414	–24

Gender time-use gap in Tanzania, by labour-market status



Note: The time-use gap was calculated as the average time spent by women per day minus average time spent by men per day on any given activity.

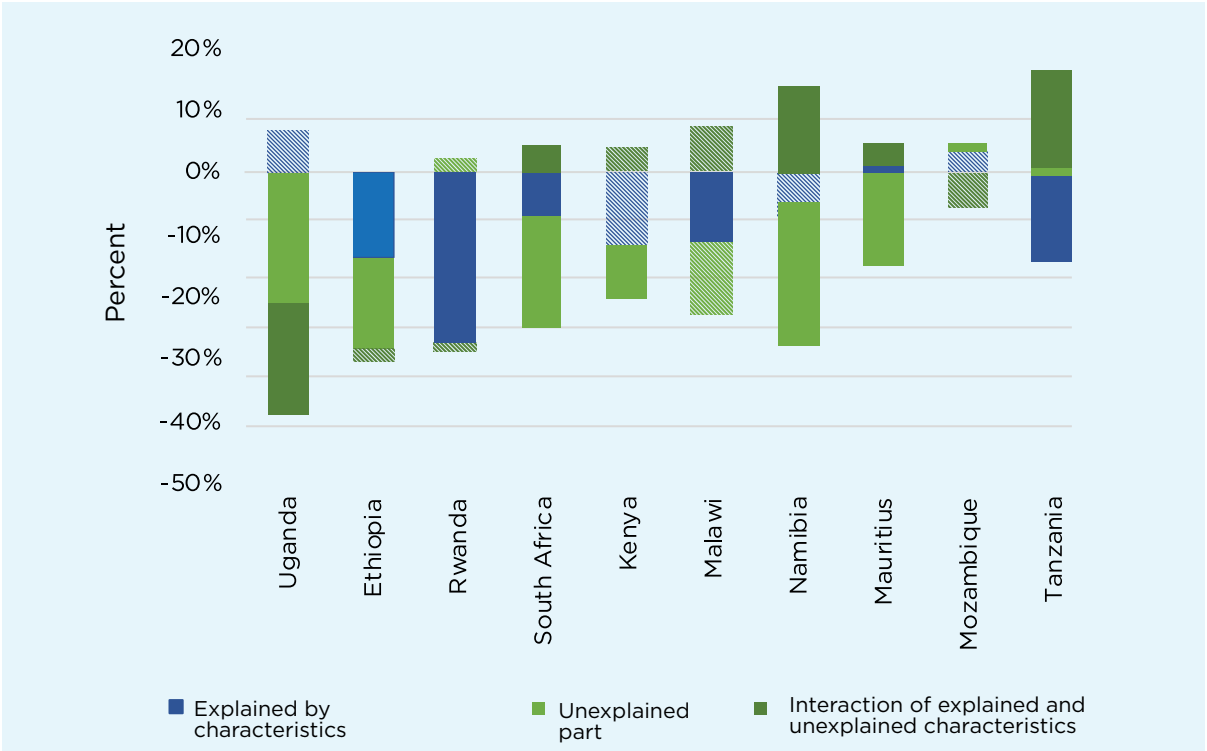
The figure above shows that the gender time-use gap for unpaid care work is smaller for wage employees than for self-employed, unemployed and inactive people. On the other hand, gender time-use gaps for employment activities are negative and larger in magnitude for all employment categories than for wage employees. This indicates that the more time that women spend on unpaid domestic and direct care activities is at the expense of time spent on employment activities. In fact, research has also shown that unpaid care work affects not only women's labour-market inputs in terms of time spent in paid employment but also how women enter and remain in paid work. It affects their occupation selection, the quality of their jobs and their job-market attachment.[65]

Figure 4.17 corroborates what is discussed above about the explanation of the adjusted gender pay gap. Majority of the gender pay gap in ESA cannot be explained by observable characteristics (e.g. individual and job characteristics) alone. Observable characteristics explain significant portions of the gender pay gaps in Rwanda, Ethiopia, Malawi, South Africa and Tanzania. In the cases of Mauritius and Namibia, which had a larger gender pay gap when adjusted, the explained parts are zero or close to zero, suggesting that the entire gender pay gap in these countries remains unexplained.

In **Figure 4.18**, the raw and adjusted gender pay gaps are contrasted with the gender employment gaps in each country and for ESA. Although a pattern is not immediately apparent, there is a fairly large positive correlation (41 per cent) between the gender employment gap and the adjusted gender pay gap, suggesting that the higher the former, the higher the latter. This shows that when women's employment rate in a country is low and is significantly lower than men's employment rate, then women are be paid less than men. Moreover, using the adjusted gender pay gap further reveals that women's characteristics cannot explain the pay difference, i.e. it is more likely that gender discrimination plays a greater role in such labour-markets than women's characteristics. It is expected that, if the economic power of women is low, captured here through their lower employment rates, then their voice in securing higher and more equal pay will also be weak, resulting in a vicious cycle in which lower chances of employment are accompanied by lower wages when employed.

With regard to educational level, the gender pay gap in ESA is larger among those with primary-level education than those with secondary and tertiary-level education, suggesting that women with lower educational levels have lower remuneration than men with the same level of education. It is more likely that this group of workers is associated with low-skill, low-productivity and low-pay sectors

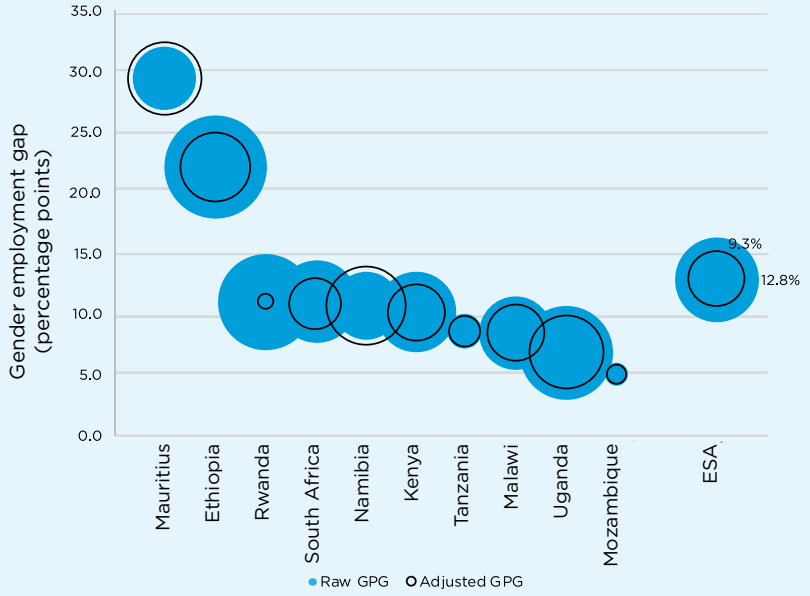
FIGURE 4.17
Oaxaca-Blinder decomposition of the hourly gender pay gap, by country



Source: Author's estimates.
Note: A patterned bar signifies that the estimated part of the gender pay gaps is not statistically significant at 5 per cent level.

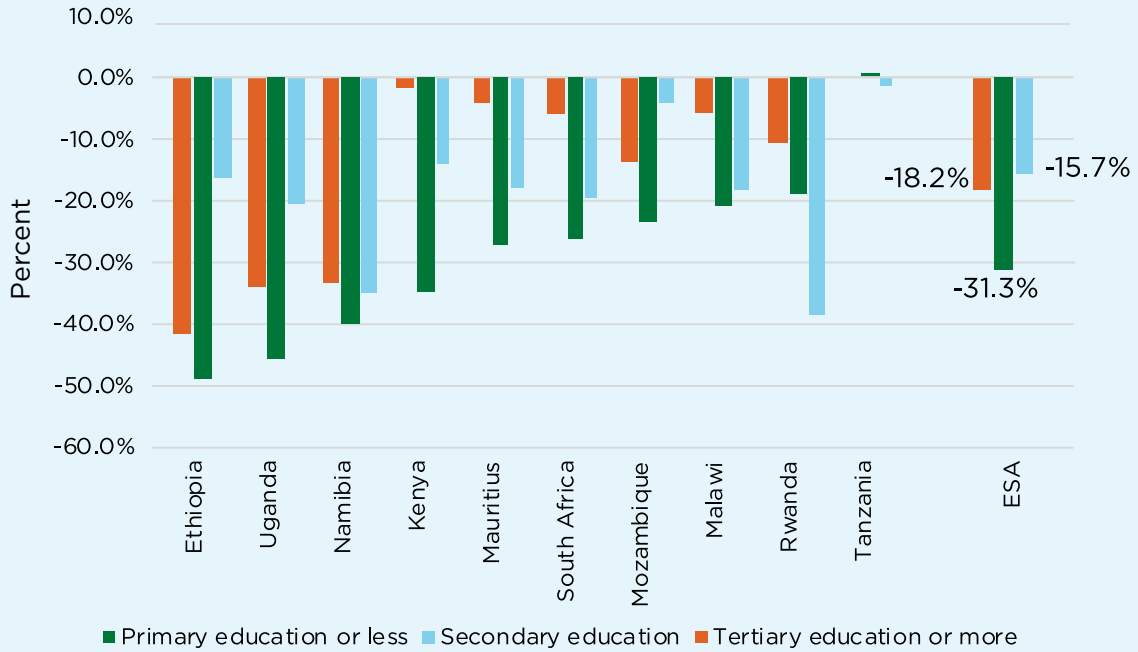
and occupations, more frequently found in precarious/informal sectors and without union representation, which together drives the widening of gender pay gaps. However, there are differences between countries. For instance, in Rwanda, the gender pay gap is the largest among secondary-educated employees. (**Figure 4.19**).

FIGURE 4.18
Raw and adjusted hourly gender pay gap vs gender employment gap, by country



Source: Author's estimates.
Note: The size of the circle represents the size of the the gender pay in gap in absolute values. GPG stands for Gender Pay Gap

FIGURE 4.19
Raw gender pay gap (hourly), by educational level and by country

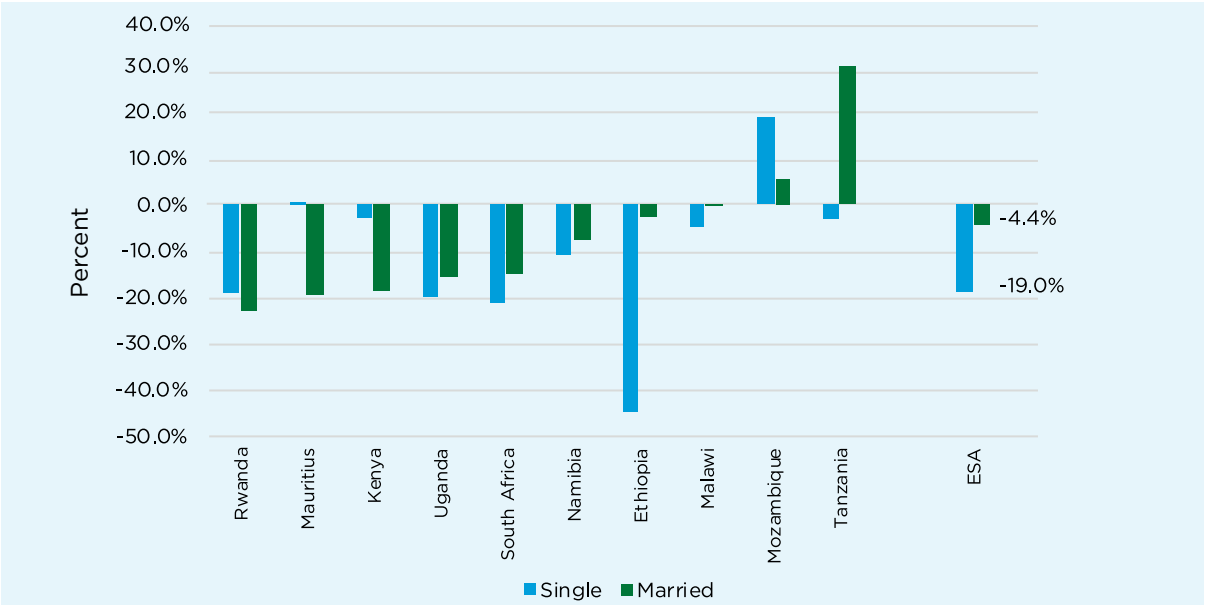


Source: Author's estimates.

As shown in **Figure 4.20**, the gender pay gap in ESA is larger for single individuals than for married individuals. However, there are substantial variations by country and the picture is mixed overall. In Ethiopia, it is considerably larger for single individuals than for married individuals, whereas the opposite is true in Rwanda, Mauritius and Kenya. For both statuses, the gap is small in Malawi, and large but positive for married individuals than for single individuals in Tanzania.

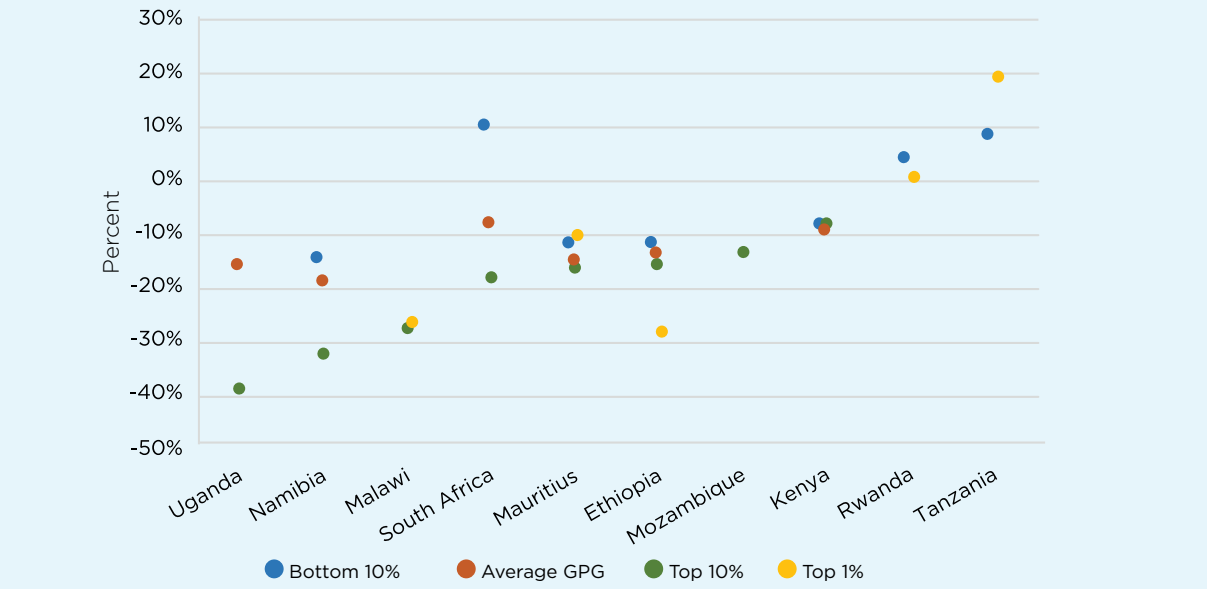
Finally, **Figure 4.21** presents the gender pay gap for the different points of the wage

FIGURE 4.20
Raw gender pay gap (hourly), by marital status and by country



Source: Author's estimates.

FIGURE 4.21
Adjusted gender pay gap (hourly) at different levels of wages, by country



Source: Author's estimates.
Note: The absence of marks for a particular observation in a country signifies that the estimated gender pay gap was not statistically significant at 5 per cent level.
GPG stands for gender pay gap.

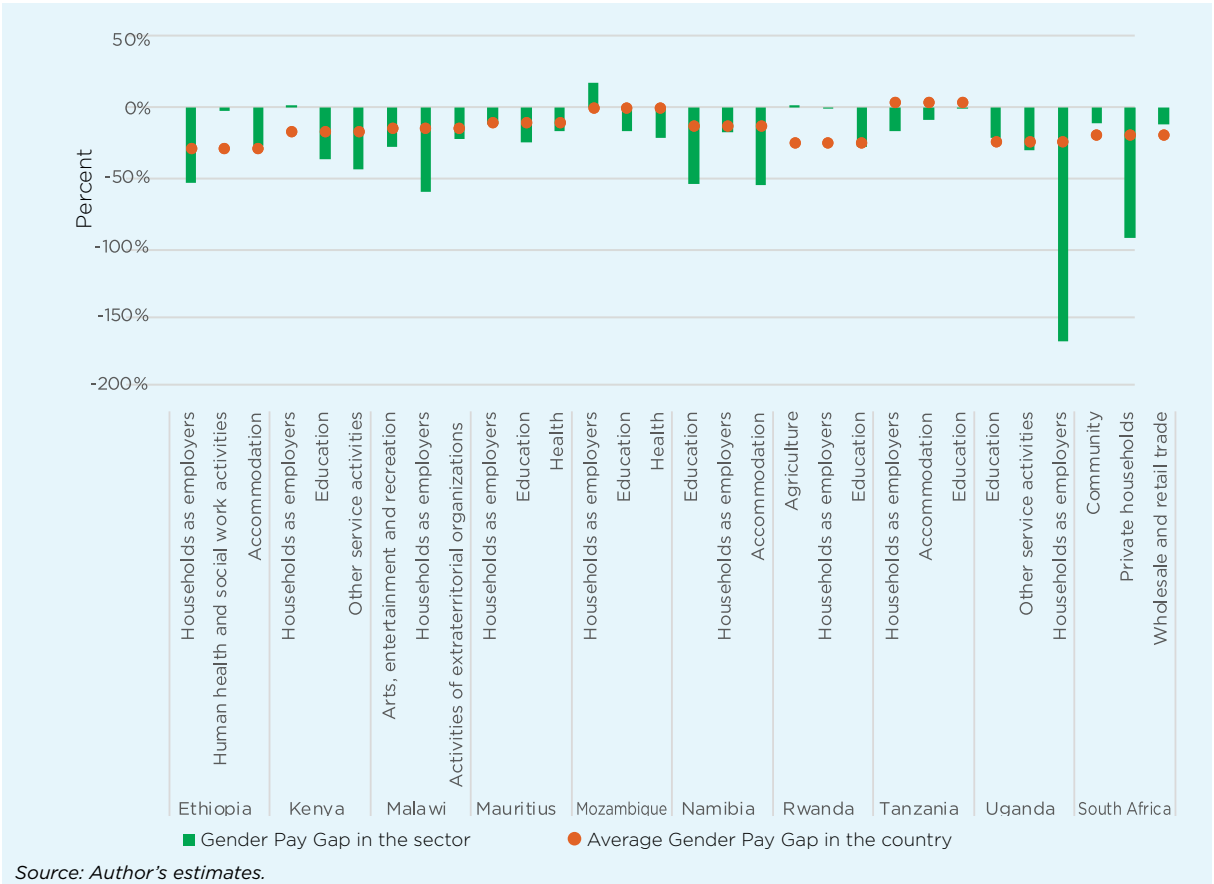
distribution, to reveal evidence of "sticky floors" and/or "glass ceilings" in ESA. The bottom 10 per cent of earners experience a lower-than-average gender pay gap in most countries and even a positive gender pay gap in South Africa, Rwanda and Tanzania. This suggests that there is no "sticky floor" in the region. The highest-paid women are represented in the top 10 per cent and the top 1 per cent of earners. In eight of the 10 countries, the gender pay gap among the top 10 per cent of earners is larger than the average gap, but not very different from the average gap in two countries. Only in Tanzania and Rwanda, the gender pay gap among the top 10 per cent of earners insignificant. Hence, there is fairly strong evidence of the existence of a glass ceiling.

This is consistent with the earlier finding that women are usually (although not exclusively) underrepresented in managerial positions compared with men. When the top 1 per cent of earners are considered, in five of the 10 countries the gender pay gap is insignificant. Only in Ethiopia does it appears significantly larger than both the average gap and the gap among the top 10 per cent of earners, suggesting a larger gender pay gap at the very top of the wage ladder. Overall, women face more barriers to climbing the occupational and wage ladders than men, but this is not as much of a problem for the top 1% women earners.

4.4 Pay gaps by sector, occupation and informality status

Figure 4.22 shows the raw gender pay gap for the three sectors in which women dominate, in terms of relative share, over men. With the exception of Agriculture in Rwanda, and households as employers in Kenya and Mozambique, the gender pay gap is negative in all the "feminine" sectors. In most cases, it is deeper than the average gender pay gap in the respective country. In other words, women face an even higher pay disadvantage in the sectors where they dominate.

FIGURE 4.22
Gender pay gap (hourly) in the top three 'feminine' sectors, by country



Source: Author's estimates.

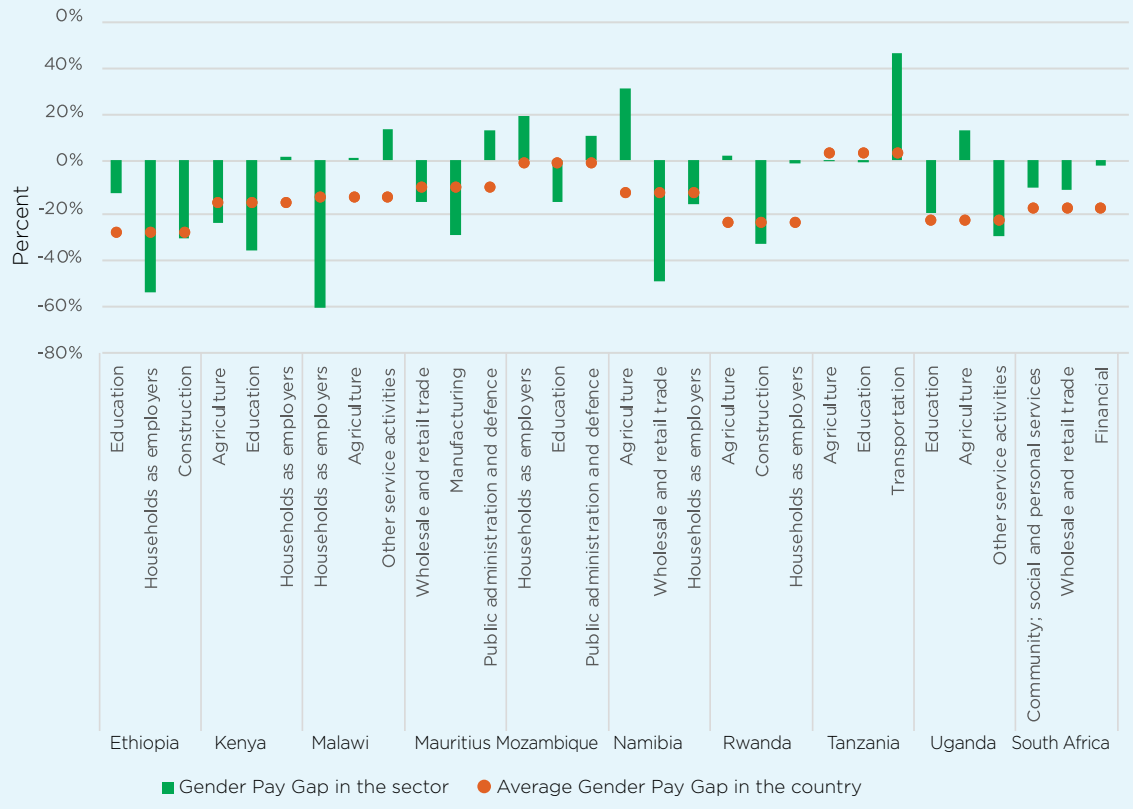
The picture partially changes when the three largest sectors in the country are considered (**Figure 4.23**). No conclusion can be drawn for ESA region as a whole. The gender pay gap in the three biggest sector varies and it is larger than the average gender pay gap in the respective country in about half the sectors.

A similar picture emerges when occupations are considered. **Figure 4.24** shows the raw gender pay gap in the three occupations in ESA in which women dominate, in terms of relative share, over men. With the exception of one case (elementary occupations in Mozambique), the gender pay gap is negative, i.e. in the top occupations in ESA in which women dominate, they are usually underpaid compared with men. When the occupational gender pay gap is compared with the average gender pay gap in the country, the picture is mixed. In some cases, women in the top three "feminine" occupations in ESA face a larger than average gender pay gap and in some cases this gap is smaller.

With the exception of three cases (craft workers in Tanzania, and elementary occupations and service and sales workers in Mozambique), women in ESA are also paid less than men in the largest three occupational groups per country (**Figure 4.25**). While such gaps are larger than the average gender pay gap in most countries, the opposite is true in some countries.

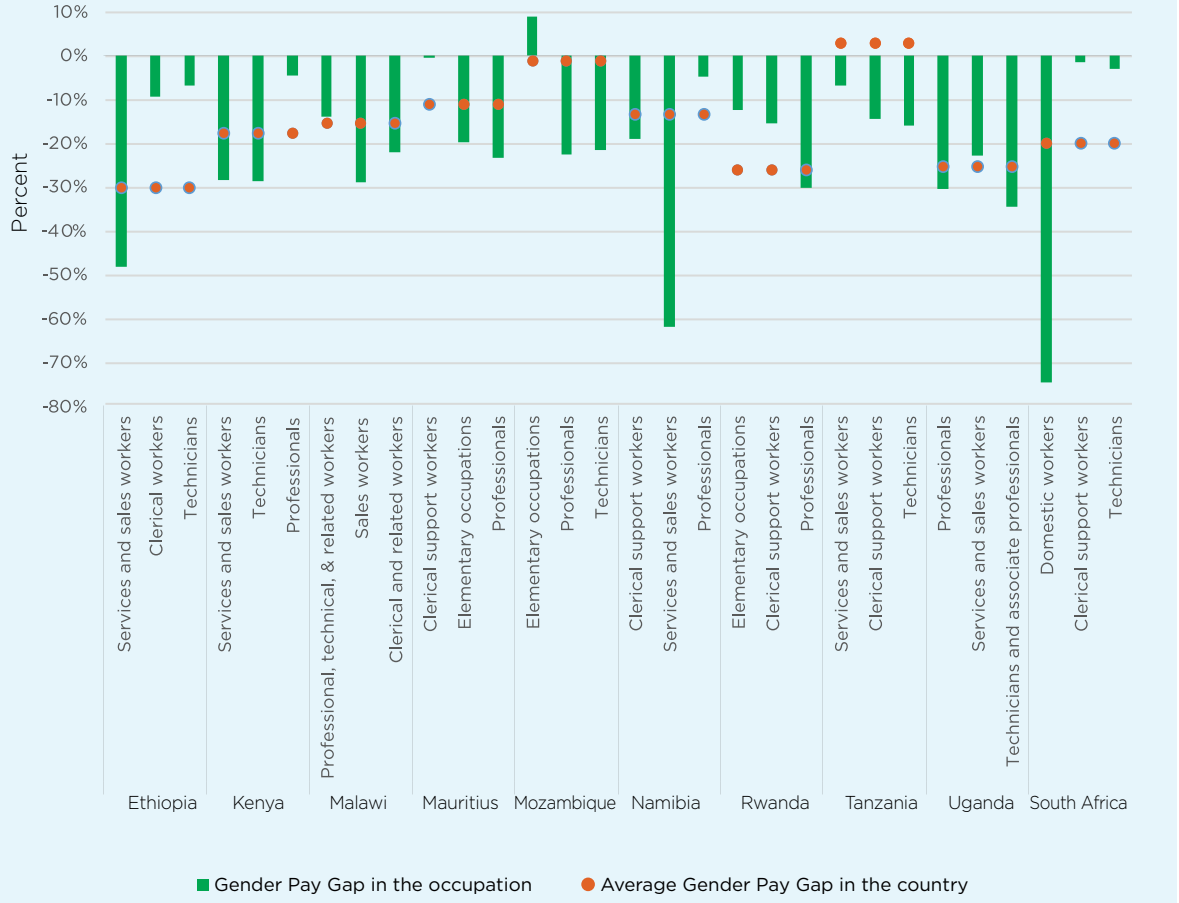
Finally, **Figure 4.26** presents the gender pay gap disaggregated by the formality–informality status of jobs. In ESA, the gender pay gap in informal employment is double that in formal employment. In eight out of the nine countries for which such information is available, the gender pay gaps in informal employment is significantly larger than those in formal employment, implying that, although women

FIGURE 4.23
Gender pay gap (hourly) in the top three largest sectors, by country



Source: Author's estimates.

FIGURE 4.24
Gender pay gap (hourly) in the top three 'feminine' occupation, by country



Source: Author's estimates.

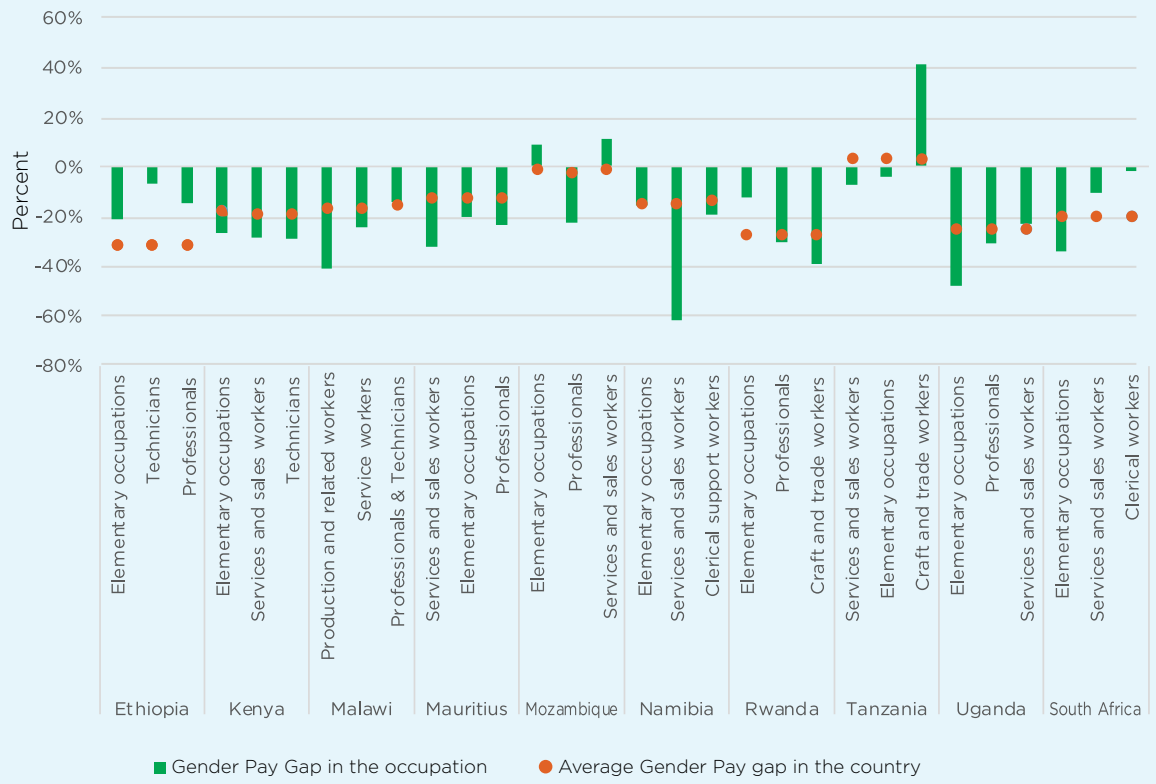
in ESA are generally not more exposed to precarious employment than men, when they are, they are paid less than women who work in informal jobs. An exception is Mauritius, where the gender pay gap in informal employment is smaller than the one in formal employment, while in Malawi and Tanzania women in formal jobs earn more than men.

4.5 Gender differences in hours worked

Figure 4.27 shows the working hours of women and men in wage employment per week. In general, the numbers of hours worked weekly by both women and men are very large in Kenya, Tanzania and Uganda, and are significantly smaller in Rwanda. Importantly, women work shorter hours than men in ESA. This explains the observations shown in **Figure 4.16**, i.e. the hourly gender pay gap is lower than the monthly one in almost all countries in ESA. The difference between women and men in hours worked for the whole region is 4.2 hours, ranging from the smallest difference in Malawi, of 1.6 hours, to the largest difference in Tanzania and Kenya, of 6.5 hours. Yet, it must be noted that the differences shown in **Figure 4.27** are not as large as they could be. Given that only wage employment is considered and that the time that women and men spend in other forms of employment, including self-employment and as contributing family members, is not considered, the difference in hours worked in paid employment could be even higher than that estimated.

FIGURE 4.25

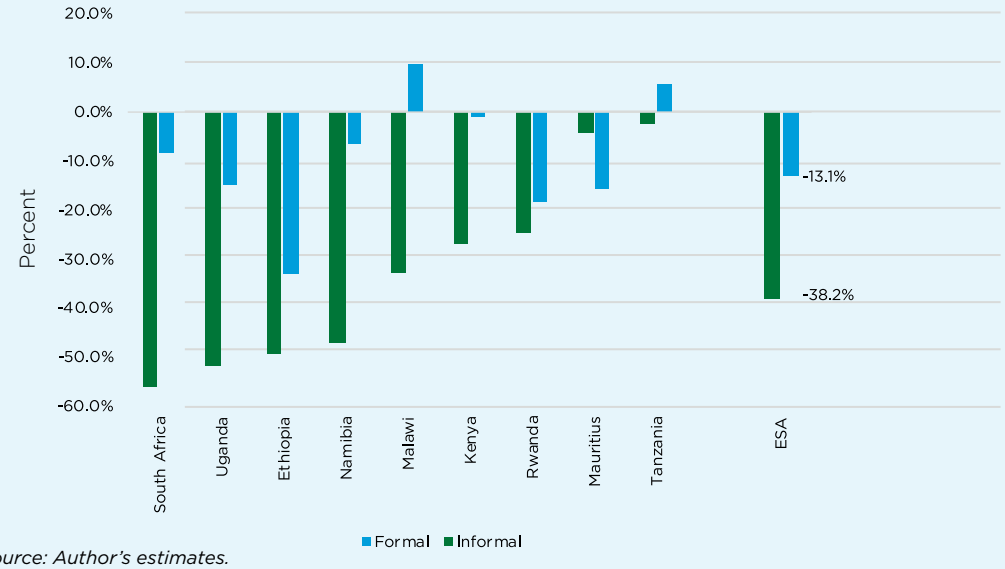
Gender pay gap (hourly) in the top three largest occupations, by country



Source: Author's estimates.

FIGURE 4.26

Gender pay gap (hourly), by formality status of wage employment and by country



Source: Author's estimates.

Next, the gender pay gap is compared with the gender hours gap for the three top "feminine" sectors (**Figure 4.28**). Overall, **Figure 4.28** shows a downwards sloping pattern, suggesting that the wider the gender pay gap (i.e. the larger the difference in pay between women and men), the narrower the gender hours gap (i.e. the smaller the difference in hours worked between women and men) in the sectors in which women are overrepresented. This shows that there is a trade-off between the gender pay gap and the gender hours gap in the most "feminine" sectors in ESA.

The conclusion reached for the top three "feminine" sectors also applies to the top three "feminine" occupations in ESA (**Figure 4.29**), although the correlation is significantly weaker (the downwards sloping pattern is less clear). Yet, it can be observed that, the smaller the difference in hours worked between women and men in the top three "feminine" occupations, the smaller the difference in the amounts they are paid.

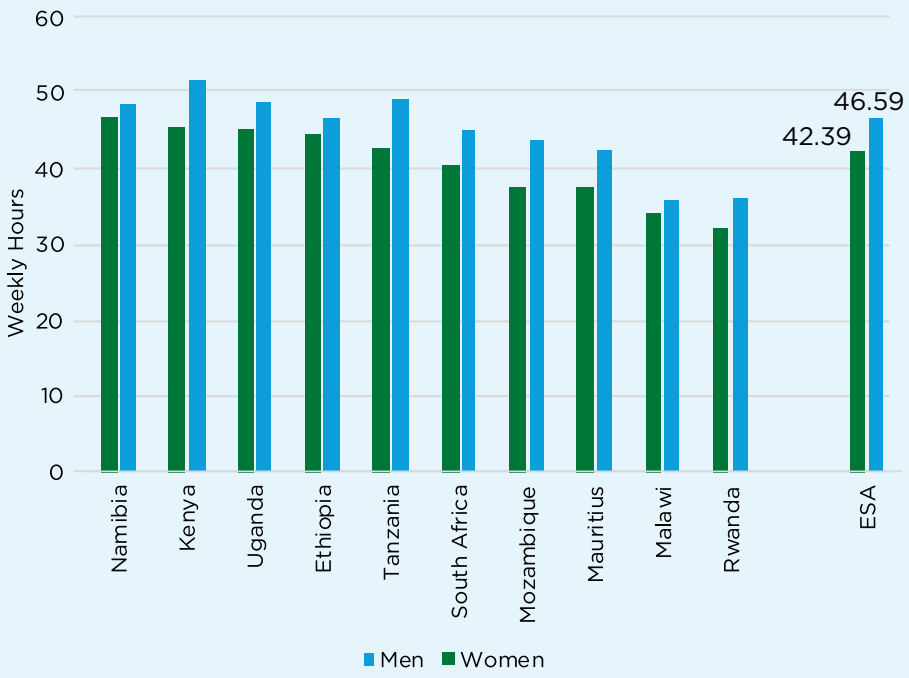
Finally, a similar yet far less clear pattern is observed when the gender pay and gender hours gaps are considered for informal employment only, in the nine countries for which such information is available. **Figure 4.30** suggests that, in informal jobs in ESA, the wider the gender pay gap, the smaller the difference in hours worked between women and men.

4.6 Gender inequality related to household structure and marital status

This section examines gender employment gap by household type and marital status. The analysis highlights the stereotyped gender division of roles in the household, whereby men are usually the breadwinners and women are expected to take care of the household and dependent family members.

For the purpose of this study, six household types have been defined, of which two are focused on: households with more than one adult and no dependent children; and households with

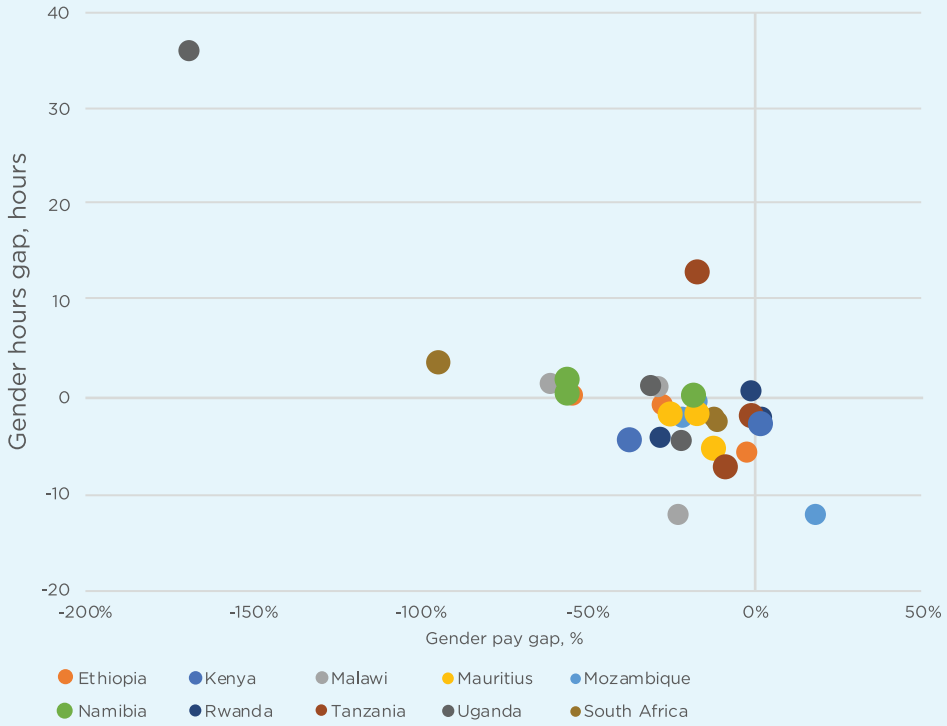
FIGURE 4.27
Hours worked per week by women and men, by country



Source: Author's estimates.

FIGURE 4.28

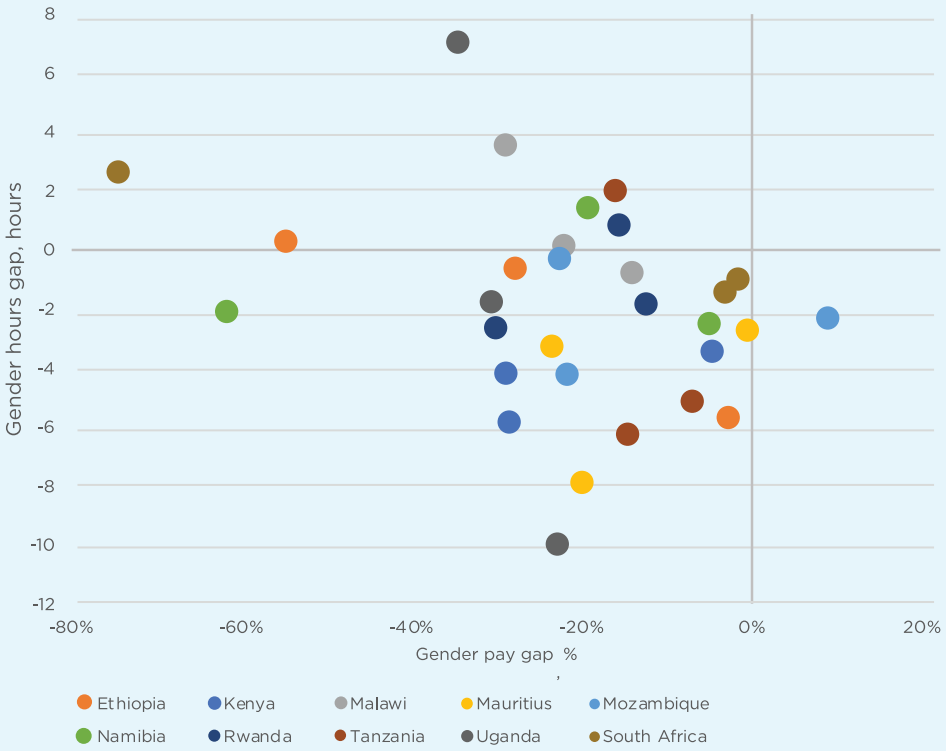
Gender pay and hours gap in the top three 'feminine' sectors, by country



Source: Author's estimates.

FIGURE 4.29

Gender pay and hours gap in the top three 'feminine' occupations, by country



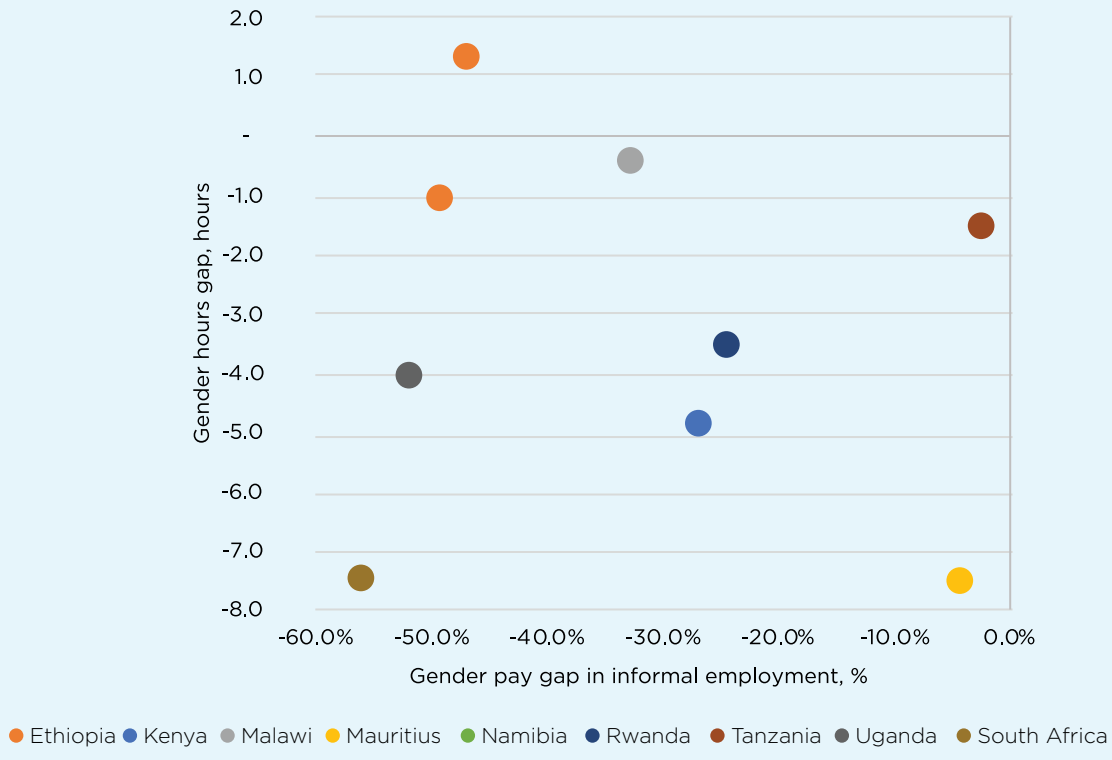
Source: Author's estimates.

dependent children. Therefore, the emphasis of this disaggregation is on the effect of the presence of children in the household. **Figure 4.31** (top) reveals that the gender employment gap is similar for households with and without dependent children in ESA as a whole. It is more negative in households with dependent children in only half the countries analysed, namely Ethiopia, Mauritius, Rwanda, Tanzania and South Africa. This implies that in these five countries, direct caregiving responsibilities for children have considerable influence on the labour-market participation of women. However, this is not the case for the rest of the countries.

The gender employment gap among married individuals, however, is clearly and significantly wider than among single individuals in ESA. This suggests that marriage comes with substantial care responsibilities and/or reinforces traditional gender roles (**Figure 4.31** [bottom]). Overall, this suggests that marriage interferes with the labour-market decisions of women more than the presence of children does, although as **Figure 4.20** showed, married women have a smaller pay gap than single women. The latter, however, may also be a matter of selection, and this could be a subject of further analysis.

Nevertheless **Figure 4.31** (top) may conceal differences across age groups, which are depicted in **Figure 4.32**. It can be observed that, on average, individuals in households with dependent children exhibit lower gender employment gaps. However, in most countries, when disaggregated by age, the gender employment gap is wider in households with no children for the key adult age group (ages 25–49), part of which covers the usual childbearing age, and for the older adult group (ages 50–64), whose lack of labour-market

FIGURE 4.30
Gender pay and hours gap in informal employment, by country

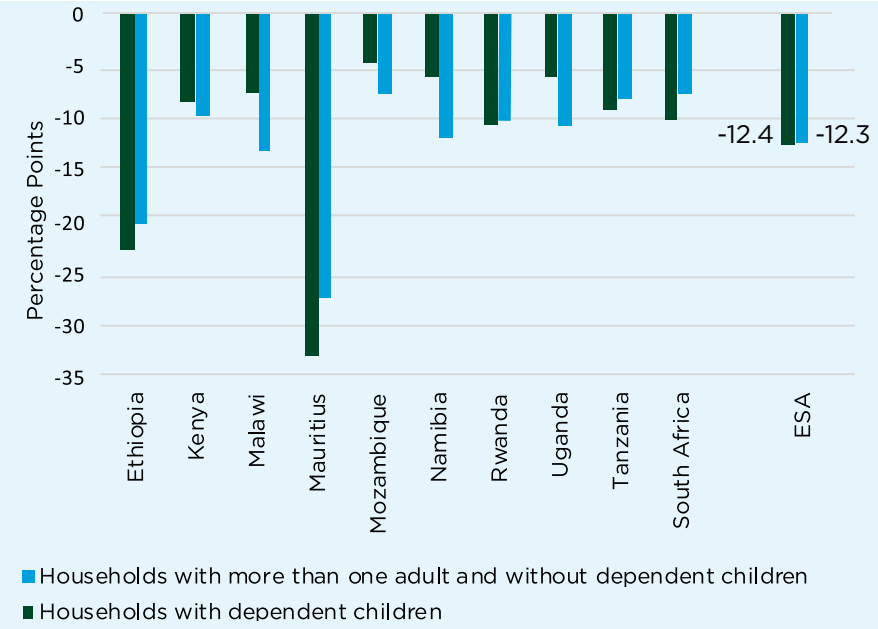


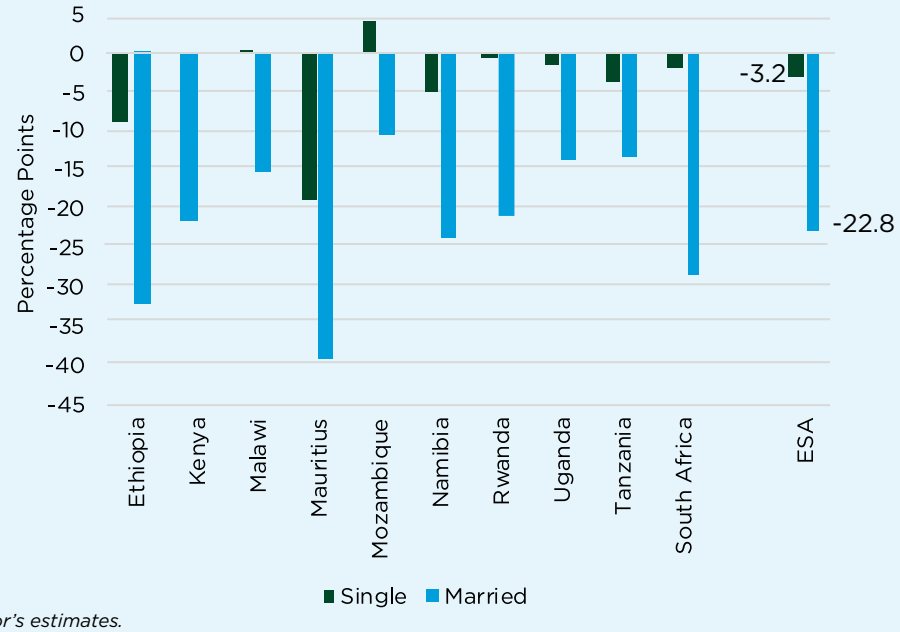
Source: Author's estimates.

participation may be associated with the care of grandchildren. Therefore, there is some evidence to suggest that children ultimately influence women's labour-market choices in ESA.

The difference in gender employment gaps between single and married individuals is about the same for all age groups (**Figure 4.33**) and educational levels (**Figure 4.34**). For both groups, the gender employment gap declines with age, although with some country-to-country heterogeneity. In fact, it is positive, i.e. women have higher employment rates than men for single adults aged between 25 and 64 years in some countries. The same pattern, although less stark, is observed with increasing educational level. Overall, single women in the

FIGURE 4.31
Gender employment gap by household type (top) and marital status (bottom), by country





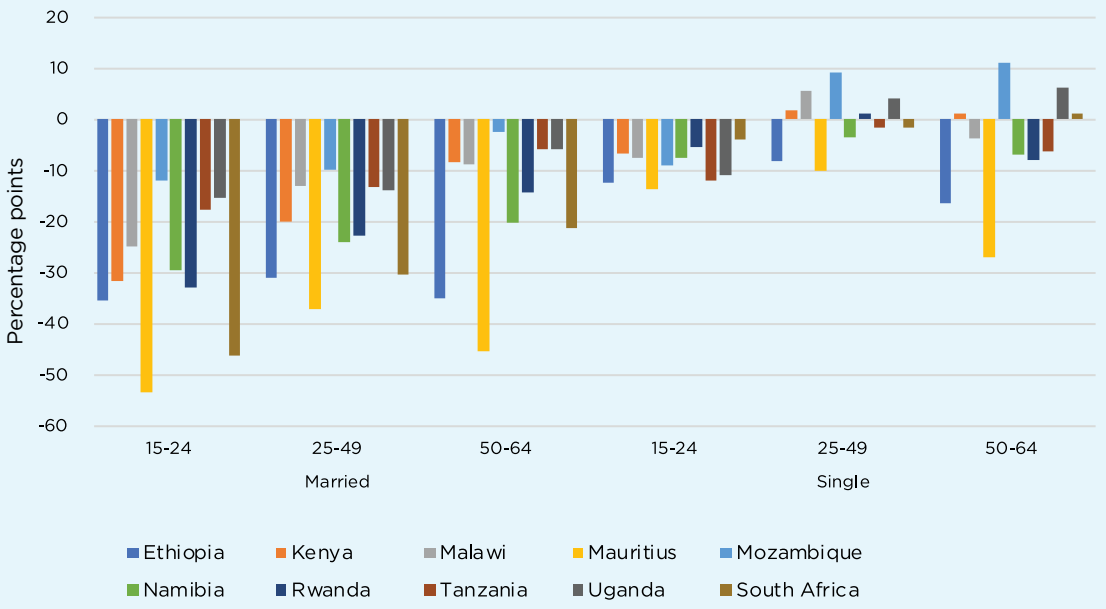
Source: Author's estimates.

FIGURE 4.32

Gender employment gap by household type and age groups, by country

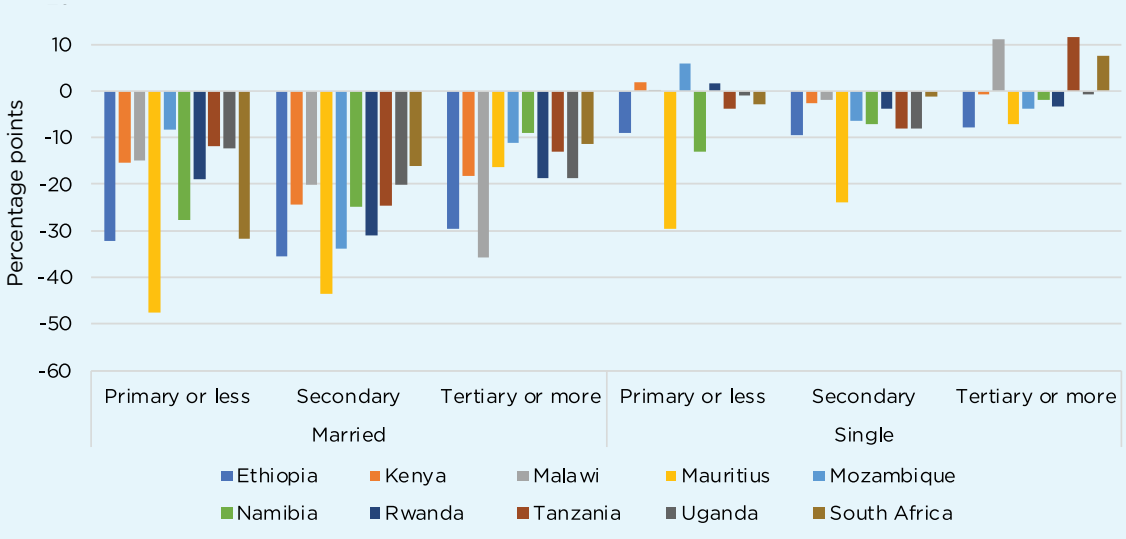
Source: Author's estimates.

FIGURE 4.33
Gender employment gap by household type and educational level, by country



Source: Author's estimates.

FIGURE 4.34
Gender employment gap by marital status and age groups, by country



Source: Author's estimates.

adult and older adult groups who are educated up to tertiary level or higher are in the most favourable position, with some country-level heterogeneity.

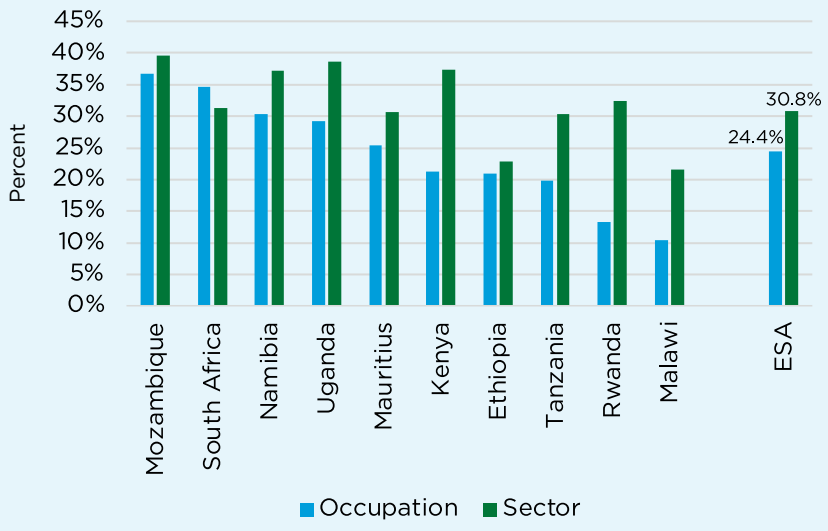
4.7 Sectoral and occupational segregation

In the final section, the Duncan Segregation Index (**Figure 4.35**) for gender segregation in sectors and occupations is discussed. This measures the share of workers who need to trade jobs across sectors or occupations for their respective distribution to become gender neutral, i.e. to eliminate any gender-based segregation. It should be noted that the index is calculated based on ISCO-08 occupational classification and NACE Rev.2 sectoral classification, both at first-digit level (as other digit levels are not available for most of the countries). The results reveal that in ESA the level of occupational segregation by gender is lower than the level of sectoral segregation. The general finding from the Mincerian earnings function was that the inclusion of sectors when calculating the adjusted gender pay gap led to a larger reduction in the raw gender pay gap than including occupations did. Occupational segregation is, similarly, more varied than sectoral segregation, i.e. occupational segregation varies more widely across the countries analysed.

Occupational segregation by gender in ESA varies somewhat by educational level. It is lowest for tertiary-educated individuals. It is highest for secondary-educated individuals in Uganda, Kenya, Malawi, Rwanda, and Tanzani, while for the remaining countries it is highest for primary-educated individuals (**Figure 4.36**). Ethiopia is an exception because occupational segregation is the highest for tertiary educated employees in the country. This explains why the inclusion of occupation in the Mincerian wage regressions reduces the magnitude of the estimated coefficients on education in most countries.

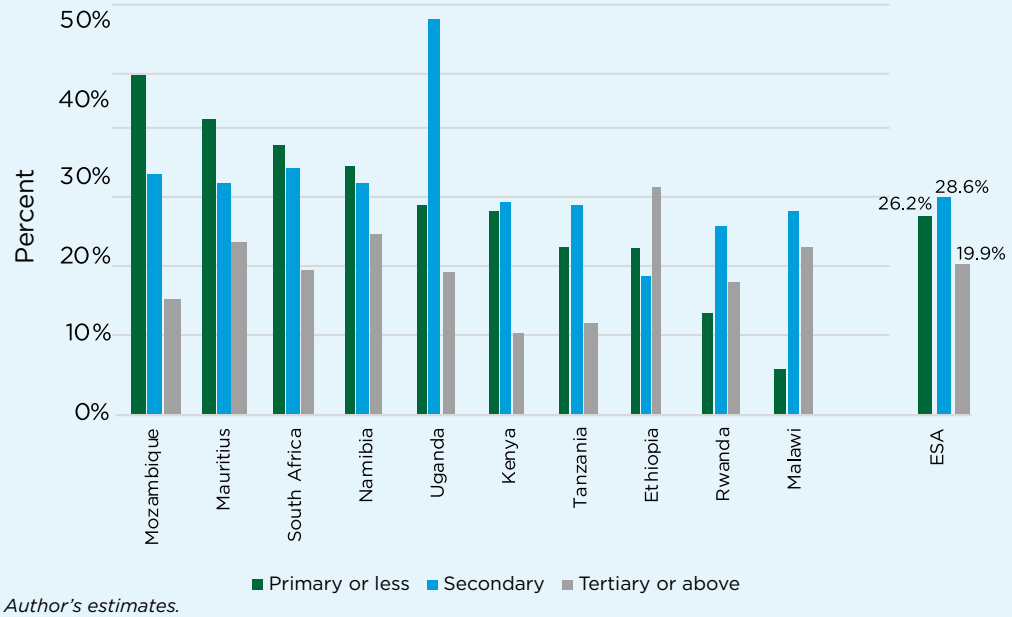
Sectoral segregation by gender in ESA is highest for secondary-educated individuals, closely followed by primary-educated individuals. It is highest for primary-educated individuals in Mauritius, Mozambique, Namibia and South Africa, and declines with educational level (**Figure 4.37**). This, likewise, explains why the inclusion of sectors in the wage regressions reduces the coefficients on education. Interestingly, tertiary-educated individuals have the highest sectoral segregation in Malawi and Ethiopia.

FIGURE 4.35
Duncan segregation index, by country



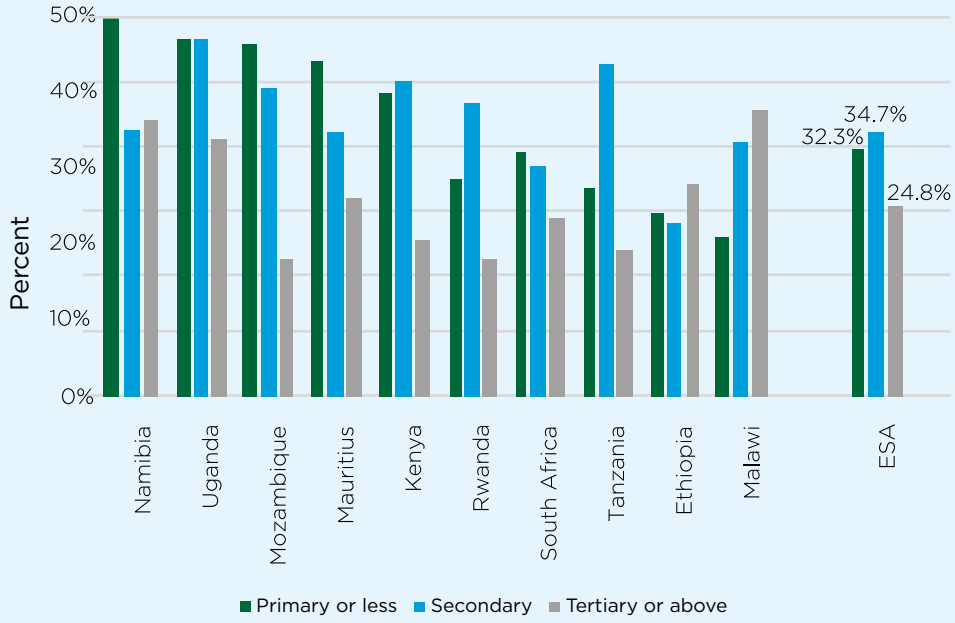
Source: Author's estimates.

FIGURE 4.36
Duncan occupational segregation index by education, by country



Source: Author's estimates.

FIGURE 4.37
Duncan sectoral segregation index by education, by country



Source: Author's estimates.

5 CONCLUSION

The objective of this study was to calculate and shed light on the gender pay gap and other labour-market inequalities in selected countries of ESA. A Mincerian earnings function using OLS was estimated, whereby pay is a function of education, age, sector and occupation, job informality status and, gender. These estimates were then used to conduct Oaxaca-Blinder decomposition to understand how much of the pay differential could be explained by the differences in observable characteristics of women and men. Likewise, several related measures were estimated to understand other labour-market inequalities by gender, including employment gaps and the Duncan Segregation Index. This chapter concludes by providing a brief overview of the main findings of the study, discussing limitations, and providing policy recommendations.

5.1 Main findings

This study documents wide variation across ESA countries in the hourly raw gender pay gap – the key metric analysed in this study – ranging from a very large 30.2 per cent in Ethiopia to no gaps in Mozambique and Tanzania. The average raw gender pay gap for the region is estimated to be 18.8 per cent. However, when such a gap is adjusted for individual and labour-market characteristics, it reduces for the whole region to 8.2 per cent. This finding reveals that observed difference in women's and men's characteristics can explain some part of the gender pay gap, although to varying degrees.

Sectoral segregation is the biggest driver of the gender pay gap in ESA, followed by individual characteristics and occupational segregation. Sectoral and occupational segregation vary by country. Occupational segregation, measured by the Duncan Segregation Index, varies from as low as 10.4 per cent in Malawi to as high as 36.7 per cent in Mozambique. The same two countries have the smallest and the largest sectoral segregation, respectively, but the difference is small.

The difference in hours worked can also explain why the hourly gender pay gap is lower than the monthly one. Women working shorter hours explains different proportions of the monthly pay gap in the different countries, ranging from explaining the gap in its entirety in Mozambique to explaining only 15.9 p.p. of the gap in Mauritius. However, the difference in hours worked by women and men is smallest in Malawi, at 1.6 hours, and largest in Tanzania and Kenya, at 6.5 hours.

The gender pay gap is large among those with primary-educational levels, suggesting that women in ESA who are less educated suffer more in terms of low remuneration than men in the same educational groups. These groups of workers are associated more with low-skill, low-productivity and low-pay sectors and occupations, more frequently found in precarious/informal sectors and without union representation, which together drives the wide gender pay gaps. With regard to marital status, the gender pay gap among married individuals is generally lower than among single individuals, although with some country-to-country heterogeneity.

Employment rates among women in ESA are heterogeneous, ranging from 37 per cent in South Africa to 76.1 per cent in Mozambique. Likewise, the gender employment gap varies from a fairly small 5 p.p. difference in Mozambique to a very large 29.4 p.p. difference in Mauritius. Nevertheless, it shows the disadvantaged position of women in ESA labour-markets, which may be related to economic opportunities, economy structures or societal norms, prejudices and stereotypes. Furthermore, it was found that in ESA countries in which the overall employment rate of women is low and much lower than the employment rate of men, the gender pay gap is significantly wider.

The sectors that are most commonly the top three "feminine" sectors across ESA are activities of households as employers, education, and human health and social work activities. In these sectors, women are usually underpaid compared with men. Hence, the sectoral segregation of women into "feminine" sectors in ESA is aggravated by them being lower paid than men. Moreover, gender pay gaps in these sectors are wider than the average gender pay gap, revealing that

women are further disadvantaged in sectors they dominate. In the largest sectors by employment, women in ESA are still worse off than men in terms of pay, but they are better off than the average woman. The occupations that are most commonly the top three "feminine" occupations in ESA are clerical support workers, service and sales workers, and technical professionals. The first two of these occupations are relatively low skilled, while the final one is relatively high skilled. In the top three occupations dominated by women, women are usually underpaid compared with men; the same conclusion applies to the top occupations by size of employment.

A lower share of women than men in ESA are employed in the highest-skilled managerial occupations, lending some support to the existence of a glass ceiling effect, preventing women from climbing up the occupational ladder. Likewise, the gender pay gaps of the top 10 per cent of earners is generally larger than the average gender pay gaps, i.e. in the highest-paid positions, women are more disadvantaged in terms of pay than the average woman, providing strong evidence for the existence of a glass ceiling. Particularly in traditional societies, cultural norms and the role of women in the household and as primary caregivers for children, and various invisible barriers under the broad category of discrimination, may prevent women from easily climbing to the highest-ranked positions and from earning the highest wages.

Finally, the effects of household structure and marital status on the gender employment gap was investigated, to further test if children and marriage play different roles in the labour-market decisions of women and of men. It was found that, on average, the gender employment gap is similar among households with dependent children and households without dependent children. However, when disaggregated by age, the gap is substantial in most of the countries analysed among the adult group that includes those of the usual childbearing age (ages 25–49 years) and older adult group (ages 50–64 years). However, the gender employment gap among married individuals is clearly and significantly larger than for single individuals.

5.2 Limitations

The study used latest data sources that were publicly available or available upon request from the Statistical Bureaus/Departments of the country, with information on wages and other variables required for the analysis. Unfortunately, not all of these data sets are labour force or integrated labour force survey. It is also critical to note that the analysis provided from sections 4.3 to 4.7 exclusively relate to wage employees. This is because information on pay is available for wage employees in most surveys. When the gender structure of contributing family members is considered, agriculture may appear to be a more "feminine" sector than when conclusions are drawn based on wage employees only. Likewise, conclusions related to informality may be different if non-wage workers were to be considered. This is because informality is most often nested in own-account workers and unpaid contributing family members.

Several caveats related to reliance on surveys are also worth mentioning. First, surveys often have a low response rate. If those who did not respond to the survey (i.e. either declined or were not reached about responding) are systematically different from those who did respond (e.g. high wage earners may not respond to surveys because they do not want to speak about it), then the results may be subject to non-response bias. Second, household surveys are known to imprecisely capture the highest wages. Some reasons for this include reported difficulties with interviewing rich households (non-response bias) and people's tendency to attenuate figures when they are quite high (response bias). Third, underreporting of wages happens along the entire wage distribution. However, Moore et al. conclude that "wage and salary income response bias estimates from a wide variety of studies are generally small".[66]

5.3 Policy recommendations

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. Allowing women to use their skills and talents optimally will also benefit the economy, reducing poverty and inequality, promoting innovation and entrepreneurship, and supporting economic growth. 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.

Governments could strengthen existing legislation or introduce new laws that ensure that women and men are entitled to equal renumeration for work of equal value. This includes 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.

Social protection policies, such as minimum wage legislation and social security benefits, can be effective if they consider the specific needs and vulnerabilities faced by women in the labour-market. Minimum wage laws especially address pay differences and increase wages for earners in the lowest deciles of the earnings distribution. Sector-specific minimum wage legislation can help to reduce the gender pay gap across sectors. However, typically, minimum wage laws do not apply to informal employment and, even if they do, enforcement is a challenge. Minimum wages can have an indirect effect on informal sector wages and employment, though, as seen in Argentina, where minimum wage legislation led to an increase in informal wages. However, more country-level research is required to understand the implications of minimum wages in the context of ESA. Nevertheless, policies to increase employment formalization, supporting workers' unions and social protection programmes, are important for complementing minimum wage legislation.

Sectoral and occupational segregation is a large contributor to the gender pay gap and 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 not only women's labour-market inputs in terms of time spent in paid employment but also how women enter and remain in paid work. It affects their occupation selection, the quality of their jobs and their job-market attachment.[67] 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.

Better data are also required on the distribution of pay in all countries covered in the study and other countries in the region. For instance, most available data sets exclude non-wage earners, which makes it impossible to understand how they are compensated. In addition, there is a lack of data on relationships in the household. Most surveys ask respondents to declare who lives in the households and their relationship to the household head. However, information on other relationships within the household is not usually requested, which restricts the identification of mothers and fathers. Several studies in other contexts have found evidence for the "motherhood penalty" and "fatherhood premium", i.e. women being paid less and men being paid more after having a child. While this study explores the effect of children in the household, it was not possible to ascertain the impact of parenthood directly from the available data.

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. This could explain the evidence for the glass ceiling effect that is observed in ESA. Individual and labour-market characteristics explain only a small part or none of the observed pay gap in most ESA countries, indicating that discriminatory beliefs might play a substantial role in the region. Thus, all stakeholders have a role to play in promoting gender equality in all spheres of society and in encouraging men's active involvement in unpaid care work. 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 requires 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 region 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, ESA countries can unlock the full potential of their workforce, fostering socioeconomic advancement, innovation and sustainable economic growth.

END NOTES

Chapter 1

1. Blunch, N.-H. (2010). *The Gender Earnings Gap Revisited: A Comparative Study for Serbia and Five Countries in Eastern Europe and Central Asia*. Washington, D.C.: World Bank.
2. ILO (International Labour Organization) (2018). *Global Wage Report 2018/19: What Lies Behind Gender Pay Gaps*. Geneva: ILO.
3. ILO (International Labour Organization) (2016). *Women at Work: Trends 2016*. Geneva: ILO.
4. Wodon, Q. and B. De La Briere (2018). "Unrealized Potential." *Journal of Biogeography* 16 (5), 498.
5. The 25 ESA countries are as follows: Angola, Botswana, Burundi, Comoros, Democratic Republic of the Congo, Djibouti, Eritrea, Eswatini (formerly Swaziland), Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Seychelles, Somalia, South Africa, South Sudan, Tanzania, Uganda, Zambia, Zimbabwe.

Chapter 2

6. Manning, A. (2011). "Chapter 11: Imperfect Competition in the Labor Market." In *Handbook of Labour Economics,* O. Ashenfelter and D. Card (Eds.) Amsterdam: Elsevier, pp. 973–1041; Lips, H.M. (2012). "The Gender Pay Gap: Challenging the Rationalizations. Perceived Equity, Discrimination, and the Limits of Human Capital Models." *Sex Roles* 68 (3), pp. 169–85; Cukrowska, E. and A. Lovasz (2014). "Are Children Driving the Gender Wage Gap? Comparative Evidence from Poland and Hungary." Working Papers No. 16/2014 (133). Warsaw: University of Warsaw; Moyser, M. (2019). "Measuring and Analyzing the Gender Pay Gap: A Conceptual and Methodological Overview Studies on Gender and Intersecting Identities." Statistics Canada. Accessed 30 June 2023. https://www150.statcan.gc.ca/n1/pub/45-20-0002/452000022019001-eng.htm.
7. Ehrenberg, R.G. and R.S. Smith (2003). *Modern Labor Economics: Theory and Public Policy.* 8th edn. London: Pearson Education, Inc.
8. Weichselbaumer, D. and R. Winter-Ebmer (2005). "A Meta-analysis of the International Gender Wage Gap." *Journal of Economic Surveys* 19 (3), pp. 479–511.
9. Kassenboehmer, S.C. and M.G. Sinning (2014). "Distributional Changes in the Gender Wage Gap." *International Labor Review* 67 (2), pp. 335–361.
10. Langdon, D.L. and R. Klomegah (2013). "Gender Pay Gap and Its Associated Factors: An Examination of Traditional Gender Ideology, Education, and Occupation." *International Review of Modern Sociology* 39 (2), pp. 173–203.
11. Furger, R. (1998). *Does Jane Compute? Preserving Our Daughters' Place in the Cyber Revolution*. New York: Warner Books.
12. Blau, F.D. and L.M. Kahn (2007). "The Gender Pay Gap: Have Women Gone as Far as They Can?" *Academy of Management Perspectives* 21 (1), pp. 7–23.
13. Howard, H.A., M.M. Habashi and J.B. Reed (2020). "The Gender Pay Gap in Research Libraries." *College and Research Libraries* 81 (4), pp. 662–675.
14. Taniguchi, H. (1997). U.S. Men's and Women's Wage Attainment, 1968–1988. PhD dissertation. Princeton, New Jersey: Princeton University.
15. Killewald, A. (2013). "A Reconsideration of the Fatherhood Premium: Marriage, Coresidence, Biology, and Fathers' Wages." *American Sociological Review* 78 (1), pp. 96–116.

16. Waldfogel, J. (1998). "Understanding the 'Family Gap' in Pay for Women with Children." *The Journal of Economic Perspectives* 12 (1), pp. 137–156; Cukrowska, E. and A. Lovasz (2014). "Are Children Driving the Gender Wage Gap? Comparative Evidence from Poland and Hungary." Working Papers No. 16/2014 (133). Warsaw: University of Warsaw.

17. 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; Blau, F.D. and L.M. Kahn (2007). "The Gender Pay Gap: Have Women Gone as Far as They Can?" *Academy of Management Perspectives* 21 (1), pp. 7–23.

18. Vincent, C. (2013). "Why Do Women Earn Less Than Men? A Synthesis of Findings from Canadian Microdata. 2013. Canadian Research Data Centre Network." *CRDCN Synthesis Series* 1 (3), pp. 1–27.

19. Lips, H.M. (2012). "The Gender Pay Gap: Challenging the Rationalizations. Perceived Equity, Discrimination, and the Limits of Human Capital Models." *Sex Roles* 68 (3), pp. 169–185.

20. Thomson, V. (2006). "How Much of the Remaining Gender Pay Gap is the Result of Discrimination, and How Much is Due to Individual Choices?" *The International Journal of Urban Labour and Leisure* 7 (2), pp. 1–32.

21. Hill, C. and C. Corbett (2012). *Graduating to a Pay Gap: The Earnings of Women and Men One Year after College Graduation*. Washington, D.C.: American Association of University Women.

22. Miller, K. and D.J. Vagins (2018). "The Simple Truth About the Gender Pay Gap." American Association of University Women. Accessed 30 June 2023. https://www.aauw.org/resources/research/simple-truth/.

23. Chafetz, J.S. (1978). *Masculine, Feminine or Human? An Overview of the Sociology of the Gender Roles.* 2nd edn. Itasca, Illinois: F. E. Peacock Publishers.

24. IMF 2019.

25. UN Women (2016). *Women in Informal Economy*. New York: UN Women.

26. Budig, M.J. and P. England (2001). "The Wage Penalty for Motherhood." *American Sociological Review* 66 (2), pp. 204–225; 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; Blau, F.D. and L.M. Kahn (2007). "The Gender Pay Gap: Have Women Gone as Far as They Can?" *Academy of Management Perspectives* 21 (1), pp. 7–23; Ehrenberg, R.G. and R.S. Smith (2003). *Modern Labor Economics: Theory and Public Policy.* 8th edn. London: Pearson Education, Inc.; Janssen, S., S. Tuor Sartore and U. Backes-Gellner (2016). "Discriminatory Social Attitudes and Varying Gender Pay Gaps Within Firms." *International Labor Review* 69 (1), pp. 253–279.

27. Nyhus, E.K. and E. Pons (2012). "Personality and the Gender Pay Gap." *Applied Economics* 44 (1), pp. 105–118.

28. Gronau, R. (1974). "Wage Comparisons – A Selectivity Bias." *Journal of Political Economy* 82 (6), pp. 1119–1143; Heckman, J.J. (1976). "The Common Structure of Statistical Models of Truncation, Sample Selection and Limited Dependent Variables and a Simple Estimator for Such Models." In *Annals of Economic and Social Measurement*. S.V. Berg (Ed.). Cambridge, Massachusetts: National Bureau of Economic Research, pp. 475–492.

29. Blau, F.D. and L.M. Kahn (2017). "The Gender Pay Gap: Extent, Trends, and Explanations." *Journal of Economic Literature* 55 (3), pp. 789–865.

30. Charmes, J. (2019). "The Unpaid Care Work and the Labour-market. An Analysis of Time Use Data Based on the Latest World Compilation of Time-use Surveys." Geneva: International Labour Office.

31. Gould, E., J. Schieder and K. Geier (2016). "What is the Gender Pay Gap and is it Real? The Complete Guide to How Women are Paid Less Than Men and Why it Can't be Explained Away." Accessed 30 June 2023. https://www.epi.org/publication/what-is-the-gender-pay-gap-and-is-it-real/.

32. Baxter, J. and E.O. Wright (2000). "The Glass Ceiling Hypothesis: A Comparative Study of the United States, Sweden, and Australia." *Gender & Society* 14 (2), pp. 275–294; Bertrand, M., S.E. Black, S. Jensen and A. Lleras-Muney (2019). "Breaking the Glass Ceiling? The Effect of Board Quotas on Female Labour-market Outcomes in Norway." *The Review of Economic Studies* 86 (1), pp. 191–239.

33. Morrison, A.M. and M.A. von Glinow (1990). "Women and Minorities in Management." *American Psychologist* 45 (2), pp. 200–208; Jacobs, J.A. (1992). "Women's Entry into Management: Trends in Earnings, Authority, and Values Among Salaried Managers." *Administrative Science Quarterly* 37 (2), pp. 282–301; Reskin, B.F. and D.B. McBrier (2000). "Why Not Ascription? Organizations' Employment of Male and Female Managers." *American Sociological Review* 65 (2), pp. 210–233.

34. Ridgeway, C.L. (2001). "Gender, Status, and Leadership." *Journal of Social Issues* 5 (4), pp. 637–655; Lee, S.M. (2002). "Do Asian American Faculty Face a Glass Ceiling in Higher Education?" *American Educational Research Journal* 39 (3), pp. 695–724.

35. Ogilvie, D. and K. Jones (1996). "African-American Women Executives' Communications Strategies: Using the Power of the Word to Break Through Concrete Ceilings." Paper presented at the 18th Annual National Black MBA Association, Inc. National Conference, New Orleans, Louisiana.

36. Tesch, B.J., H.M. Wood, A.L. Helwig and A.B. Nattinger (1995). "Promotion of Women Physicians in Academic Medicine: Glass Ceiling or Sticky Floor?" *Journal of the American Medical Association* 273 (13), pp. 1022–1025; Padavic, I. and B. Reskin (2002). *Women and Men at Work*. Thousand Oaks, California: Pine Forge Press.

37. Acevedo, D. (2002). *El trabajo y la salud laboral de las mujeres en Venezuela: Una vision de Género*. Maracay: Universidad de Carabobo; Messing, K. and D. Elabidi (2003). "Desegregation and Occupational Health: How Male and Female Hospital Attendants Collaborate on Work Tasks Requiring Physical Effort." *Policy and Practice in Health and Safety* 1 (1), pp. 83–103.

38. Quinlan, M.C., C. Mayhew and P. Bohle (2001). "The Global Expansion of Precarious Employment, Work Disorganization, and Consequences for Occupational Health: A Review of Recent Research." *International Journal of Health Services* 31 (2), pp. 335–414.

39. ILO (International Labour Organization) (2000). *Gender! A Partnership of Equals*. Bureau for Gender Equality. Geneva: ILO.

40. UN Women (2016). *Women in Informal Economy*. New York: UN Women; Ntuli, M. and P. Kwenda (2020). *Women and Sustainable Human Development*. Berlin: Springer.

Chapter 3

41. 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.

42. Mincer, J. (1974). *Schooling, Experience, and Earnings*. New York: Columbia University Press.

43. Budig, M.J. and P. England (2001). "The Wage Penalty for Motherhood." *American Sociological Review* 66 (2), pp. 204–225; Lemieux, T. (2006). "Postsecondary Education and Increasing Wage Inequality." *American Economic Review* 96 (2), pp. 195–199.

44. Budig, M.J. and P. England (2001). "The Wage Penalty for Motherhood." *American Sociological Review* 66 (2), pp. 204–225.

45. Beblo, M., D. Beninger, A. Heinze and F. Laisney (2003). "Measuring Selectivity-corrected Gender Pay Gaps in the EU." ZEW Discussion Paper No. 03–74. Mannheim: Centre for European Economic Research.

46. Buchinsky, M. (1998). "Recent Advances in Quantile Regression Models: A Practical Guideline for Empirical Research." *Journal of Human Resources* 33 (1), pp. 88–126.

47. Koenker, R. and G. Bassett (1978). "Regression Quantiles." *Econometrica* 46 (1), pp. 33–50.

48. Kitagawa, E.M. (1955). "Components of a Difference Between Two Rates." *Journal of the American Statistical Association* 50 (272), pp. 1168–1194.

49. Oaxaca, R.L. (1973). "Male–Female Wage Differentials in Urban Labor Markets." *International Economic Review* 14 (3), pp. 693–709.

50. Blinder, A.S. (1973). "Wage Discrimination: Reduced Form and Structural Estimates." *The Journal of Human Resources* 8 (4), pp. 436–455.

51. Jann, B. (2008). "The Blinder–Oaxaca Decomposition for Linear Regression Models." *The Stata Journal* 8 (4), pp. 453–79.

52. Beblo, M., D. Beninger, A. Heinze and F. Laisney (2003). "Measuring Selectivity-corrected Gender Pay Gaps in the EU." ZEW Discussion Paper No. 03–74. Mannheim: Centre for European Economic Research.

53. 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.

54. Machado, J.A.F. and J. Mata (2005). "Counterfactual Decomposition of Changes in Wage Distributions Using Quantile Regression." *Journal of Applied Econometrics* 20, pp. 445–465.

55. Firpo, S., N.M. Fortin and T. Lemieux (2007). "Decomposing Wage Distributions using Recentered Influence Function Regressions." *Mimeo*. Vancouver: University of British Columbia; Firpo, S., N.M. Fortin and T. Lemieux (2009). "Unconditional Quantile Regressions." *Econometrica* 77 (3), pp. 953–973.

56. Chernozhukov, V., I. Fernández-Val and B. Melly (2013). "Inference on Counterfactual Distributions." *Econometrica* 81 (6), pp. 2205–2268.

57. Duncan, O.D. and B. Duncan (1955). "A Methodological Analysis of Segregation Indexes." *American Sociological Review* 20 (2), pp. 210–217.

58. Blau, F.D., M.Ferber and A.Winkler (2002) The Economics of Women, Men and Work. 4th edition (Englewood Cliffs, NJ: Prentice Hall).

59. Statistical Bureaus/Departments of Mauritius and Ethiopia were contacted to get access to the latest survey data because these data sets were not publicly available at the time this study was conducted.

60. World Bank (2023). "World Development Indicators." Accessed 1 September 2023. https://datatopics.worldbank.org/world-development-indicators/.

61. Please see details here: https://ec.europa.eu/eurostat/documents/3859598/5902521/KS-RA-07-015-EN.PDF (accessed 12 September 2023).

62. Please see more details here: https://www.ilo.org/public/english/bureau/stat/isco/isco08/ (accessed 12 September 2023).

Chapter 4

63. ILO (International Labour Organization) (2018). *Global Wage Report 2018/19: What Lies Behind Gender Pay Gaps*. Geneva: ILO.

64. The sample comprised 3,838 men and 4,112 women of working age, i.e. between 15 and 64 years.

65. ILO (International Labour Organization) (2018). *Global Wage Report 2018/19: What Lies Behind Gender Pay Gaps*. Geneva: ILO.

66. Moore, J.C., L.L. Stinson and E.J. Welniak, Jr. (2000). "Income Measurement Error in Surveys: A Review." *Journal of Official Statistics* 16 (4), pp. 331–361, p. 342.

67. ILO (International Labour Organization) (2018). *Global Wage Report 2018/19: What Lies Behind Gender Pay Gaps*. Geneva: ILO.

UN WOMEN IS THE UN 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 UN Member States as they set global standards for achieving gender equality, and works with governments and civil society to design laws, policies, programmes and services needed to ensure that the standards are effectively implemented and truly benefit women and girls worldwide. It works globally to make the vision of the Sustainable Development Goals a reality for women and girls and stands behind women's equal participation in all aspects of life, focusing on four strategic priorities: Women lead, participate in and benefit equally from governance systems; Women have income security, decent work and economic autonomy; All women and girls live a life free from all forms of violence; Women and girls contribute to and have greater influence in building sustainable peace and resilience, and benefit equally from the prevention of natural disasters and conflicts and humanitarian action. UN Women also coordinates and promotes the UN system's work in advancing gender equality.

UN WOMEN

www.unwomen.org
www.facebook.com/unwomen
www.twitter.com/un_women
www.youtube.com/unwomen
www.flickr.com/unwomen