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Where Do Women Work? Public Sector Employment, Gender, and Development

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ABSTRACT

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We combine cross-country data from the Jobs of the World Database with harmonized household microdata from 18 Sub-Saharan African and 15 Latin American and Caribbean countries to document how men and women are allocated across self-employment, private wage employment, and public wage employment as economies develop. Globally, rising incomes are associated with a shift away from self-employment and toward wage work, and with women increasingly over-represented, relative to men, in the public sector. Sub-Saharan Africa departs sharply from this pattern: self-employment remains pervasively high even at comparable levels of income and urbanisation, and unlike in the rest of the world, women are under-represented in SSA's public sector relative to men. Using detailed microdata, we consider gender differences in labour market participation, urbanisation, educational attainment, and earnings to explain these patterns.

JEL Classification:

J16, J21, J31, J45, O15

Keywords:

gender wage gap, female labor force participation, public sector, Sub-Saharan Africa, structural transformation

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1 Introduction

Employment in developing countries looks fundamentally different from employment in advanced economies. In poor economies, most workers are self-employed or work, often unpaid, on a household farm or family enterprise; as economies develop, workers move into wage employment ([Fields, 2011](#); [Herrendorf et al., 2014](#); [Rud and Trapeznikova, 2021](#)). This transformation is far from uniform across today’s developing world, with Sub-Saharan Africa (SSA) being a clear outlier where subsistence self-employment remains stubbornly high even as incomes rise, a pattern consistent with what [Rodrik \(2016\)](#) terms “premature deindustrialization”. Understanding who is left behind by this transformation, and why, is central to understanding both aggregate development and the persistence of labour market inequality across and within countries.

Gender is one of the sharpest dimensions along which this structural transformation is incomplete. A large literature has studied women’s labour force participation and its relationship with development ([Ngai and Petrongolo, 2017](#)), as well as gender wage gaps within given sectors. Relatively less is known about how men and women are selected across the different types of employment – self-employment, private wage work, and public sector, and how that selection evolves with development. This distinction matters because the three types of employment differ greatly in job security, pay, and working conditions they offer, and because a growing body of evidence suggests that the public sector, specifically, plays a distinctive role in shaping gender gaps in high-income countries: women are systematically over-represented in public employment, and this over-representation is closely tied to a smaller public-private gender wage gap and to a wage premium that is larger for women than for men ([Gomes and Kuehn, 2024](#); [World Bank, 2018a](#)). Whether this same mechanism operates in the world’s poorest labour markets, where public employment is small and self-employment dominates, is an open question.

This paper addresses that question by documenting how the selection of men and women into self-employment, private employment, and public employment varies systematically across the development spectrum, and by using this global benchmark to understand why Sub-Saharan Africa’s labour markets stand out. We combine two com-

plementary sources of data. The first is the Jobs of the World Database (JWD), which harmonises Demographic and Health Surveys and national censuses to construct comparable labour market indicators for countries covering 81% of the world's population and over 90% of the population in low- and middle-income countries ([Bandiera et al., 2022](#)). This dataset lets us document global patterns linking sectoral selection, gender, and GDP per capita. The second source is harmonised microdata from nationally representative household surveys for 18 Sub-Saharan African and 15 Latin American and Caribbean countries, which allows us to go beyond aggregate patterns and examine, at the individual level, how education, age, location of residence, and wages jointly shape men's and women's selection into each sector.

Our analysis proceeds in three steps. We first characterise the overall relationship between sectoral employment composition and development. Consistent with the structural transformation literature, self-employment (including unpaid work) falls sharply with GDP per capita worldwide, while private and, to a lesser extent, public sector employment expand. In Sub-Saharan Africa, self-employment remains high even among the region's richest and most urbanised economies, suggesting that the region's transformation is not simply lagging behind on a common trajectory, but following a structurally different one.

We then turn to gender. Across the world, women's probability of self-employment falls with income, but a growing share of the resulting gains in wage employment accrue specifically to the public sector rather than the private sector. That is, the gender employment gap in the private sector remains remarkably stable with development, while women become increasingly over-represented in the public sector relative to men ([World Bank, 2018b](#)). Sub-Saharan Africa is the striking exception to this pattern: throughout the region's income range, women remain under-represented in public employment relative to men.

Having established this divergence, we examine potential factors that might be causing it. We show that it is not explained by labour force participation (LFP) as Sub-Saharan Africa features relatively high female LFP rates (comparable to the OECD countries) and a small gender gap in participation. In fact, higher relative female participation in the

region is associated with more, not less, relative selection into subsistence activities. We then turn to education and show that SSA women are considerably less educated than men, which is particularly important for gaining access to public sector jobs that tend to hire more educated workers.

Finally, we document a second barrier facing women in developing countries: women tend to earn significantly lower earnings than men when working for a wage, even after controlling for observable characteristics. We show that gender wage gaps are significantly larger in the private sector than in the public sector in both SSA and LAC. In addition, we find that the public sector pays a wage premium, relative to the private sector, which is systematically larger for women than for men, particularly in SSA economies.

Overall, our findings suggest that while Sub-Saharan Africa's public sector follows the global pattern of paying more equal to women and men, its equalising role in the labour market is limited by a prior and more fundamental obstacle: the region's persistently high rate of female self-employment. This points to the need of developing complementary policies, such as improving education access to girls, expanding childcare support, etc. that can draw women out of subsistence self-employment and into wage work in the first place.

The remainder of the paper is organised as follows. Section 2 describes our data sources and key definitions. Section 3 documents the relationship between sectoral employment composition, development, and urbanisation, and characterises the demographic profile of workers in each sector. Section 4 turns to gender, documenting global patterns of sectoral selection by gender and showing how Sub-Saharan Africa departs from them, before examining participation, education, and wage setting as candidate explanations. Section 5 concludes.

2 Data description

2.1 Data sources

In this paper, we use two types of data. The first is based on the Jobs of the World Database (JWD) produced under IZA’s Growth and Labour Markets in Low Income Countries (G²LM|LIC) programme, which compiles microdata from various nationally representative surveys or censuses to construct indicators of labor market activities and workforce characteristics (Bandiera et al., 2022; Elsayed and Bandiera, 2021).¹ In particular, JWD harmonizes the Demographic and Health Surveys (DHS) and National Censuses (IPUMS) for all countries and all years after 1990 where data are available. We use the most recent year available for each country. This dataset spans countries representing roughly 81% of the world’s population and over 90% of the population in low- and middle-income countries. We are interested in cross-country comparisons in wage and subsistence employment by gender and sectors. The JWD dataset includes working-age population and covers low, middle, and high-income countries.

The second source of data is microdata drawn from nationally representative household surveys for Sub-Saharan Africa and Latin America. For our analysis, we use microdata from 18 Sub-Saharan African countries from 2005 to 2020 and 15 Latin American countries for 2018 (see Appendix A for the full list of countries and datasets). These nationally representative surveys provide detailed information on demographics, household composition, area of residence, and labour variables, including employment status, sector, industry, and wages.

2.2 Definitions

We focus our analysis on working-age individuals that are currently in work. We define wage employees similarly to the JWD dataset as respondents who report working for an employer different from a family member and who are not self-employed. Within wage employment, we distinguish between public sector jobs that include state-owned

¹The data can be downloaded from <https://jwp.iza.org/>.

enterprises and parastatals, and private sector jobs, which include employment by private firms and/or individuals. Self-employment workers are comprised of own-account workers, as well as paid and unpaid household members working on a household farm or enterprise. Here, it is crucial to include unpaid family workers in the analysis, given the relative prevalence of unpaid work in low-income countries, especially among women ([Gottlieb et al., 2024](#)).

We harmonize the data on employment choices, industry, and monthly wages for workers across multiple countries and document gender differences in employment composition and pay across these three sectors, and how they vary by education and residence.

3 Public, private, and subsistence employment

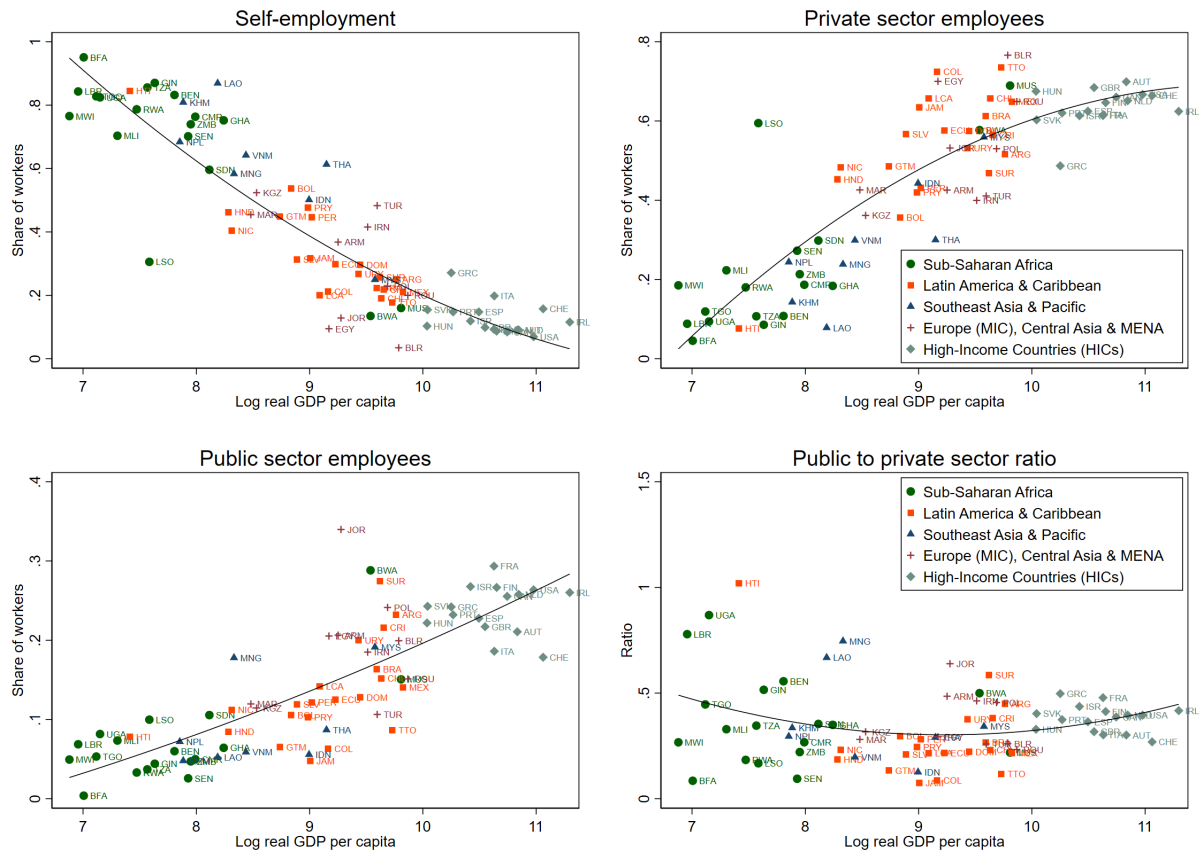
We start our analysis by reporting the average employment composition by sector for each country using Jobs of the World Data.

The top left panel of Figure 3.1 shows that the share of workers in self-employment falls sharply with log GDP per capita: as economies develop, employment shifts away from self-employment and subsistence activities and into wage employment in the private and public sectors. This pattern is consistent with the broader structural transformation literature, which documents that employment moves out of agriculture, where family farms and unpaid family work are the dominant organizational form, and into manufacturing and, increasingly, services as countries become richer ([Ngai and Pissarides, 2008](#); [Herrendorf et al., 2014](#); [Rud and Trapeznikova, 2021](#)). Figure B.1 in Appendix B shows this sectoral reallocation from agriculture to manufacturing to services directly.

Two features of Figure 3.1 deserve an emphasis. First, as the level of log GDP per capital increases, both private and public sectors are growing². However, the gain in employment is much larger among private companies than in the government: richer countries in our sample employ 20-30% of their workforce in the public sector and up to

²The fact that the size of the government rises with development holds also when measured by the public sector wage bill as a share of GDP ([World Bank, 2018a](#)).

Figure 3.1: Employment composition and the level of development



Note: The sample is working age population, currently in work. Self-employed workers include unpaid family members. Source: Jobs of the World Data.

70% in the private sector (see top right and bottom left panels of Figure 3.1).

Conditional on being a wage employee, the ratio of public to private sector workers is relatively flat across the development spectrum, with higher values at both extremes of the income distribution (see the bottom right panel of Figure 3.1). These results are broadly consistent with existing multi-country evidence on public sector employment (World Bank, 2018a).

Second, the reallocation of labour from self-employment to wage employment is not uniform across country groups. The flattening of the relationship in the top two panels of Figure 3.1 suggests that low income countries show the steepest fall in self-employment and the corresponding rise in private employment, while the richest countries in our sample show comparatively flat profiles, having largely completed this transition and settled into stable shares split between public and private wage employment, with self-

employment remaining below 10%. Zooming into each region separately, we find that while the gradient of self-employment in log GDP per capita is similar between the poorest countries in our sample and Latin America, the trends start at a higher level of self-employment (and a lower level of private employment) in SSA and South East Asia.³

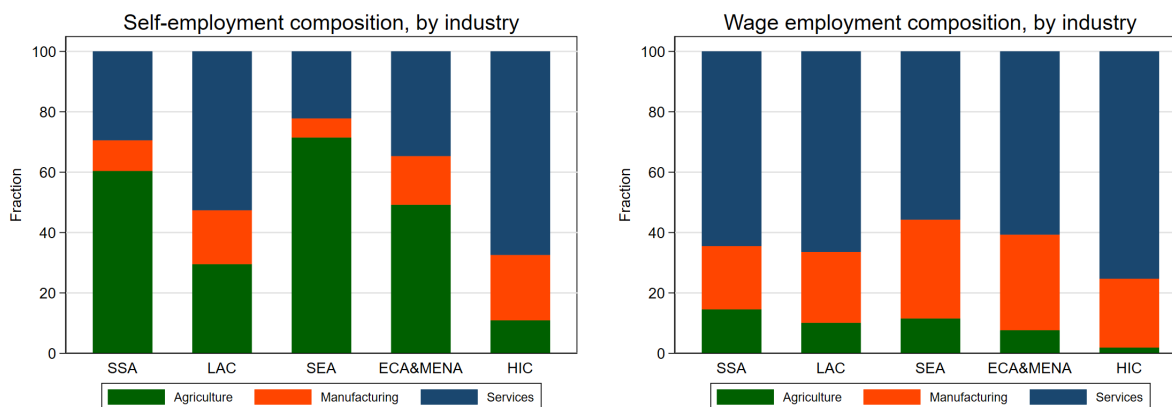
In the next subsections, we will explore regional differences in the demographic composition of workers to better understand which factors are responsible for the over-representation of self-employed workers in the poorest economies.

3.1 Employment composition and urbanisation rate

Figure 3.2 presents the composition of the workforce by industry of employment among self-employed workers and wage employees, separately. There are significant differences found across the regions of the world. Self-employment and unpaid family work are heavily concentrated in agriculture in the poorest countries in our sample: on average, about 60% of self-employed individuals work in agriculture in Sub-Saharan Africa and 70% in South East Asia. See also B.2 in Appendix B for the differences in the industrial composition of the self-employed workers between SSA and LAC based on the micro data. Whereas in middle-income countries this share is close to 30-40%, falling to 10% in the richest economies. The dominant sector of employment among the self-employed in middle and high-income countries is services.

³This is consistent with the observation that today's developing countries, and African economies in particular, have experienced their structural transformation on a different trajectory than the historical experience of currently-developed economies, what Rodrik (2016) terms "premature deindustrialization," where the manufacturing employment share peaks and declines at markedly lower income levels than it did historically in Europe or North America. Dinkelman and Ngai (2022) document a similar pattern using sector-level employment data for 11 SSA countries over 1970–2010: while employment does shift from agriculture toward manufacturing and services as GDP per capita rises, the pace and completeness of that shift lags the pattern observed in high-income economies over their own development paths.

Figure 3.2: Workforce composition by industry among self-employed and wage employees, by region



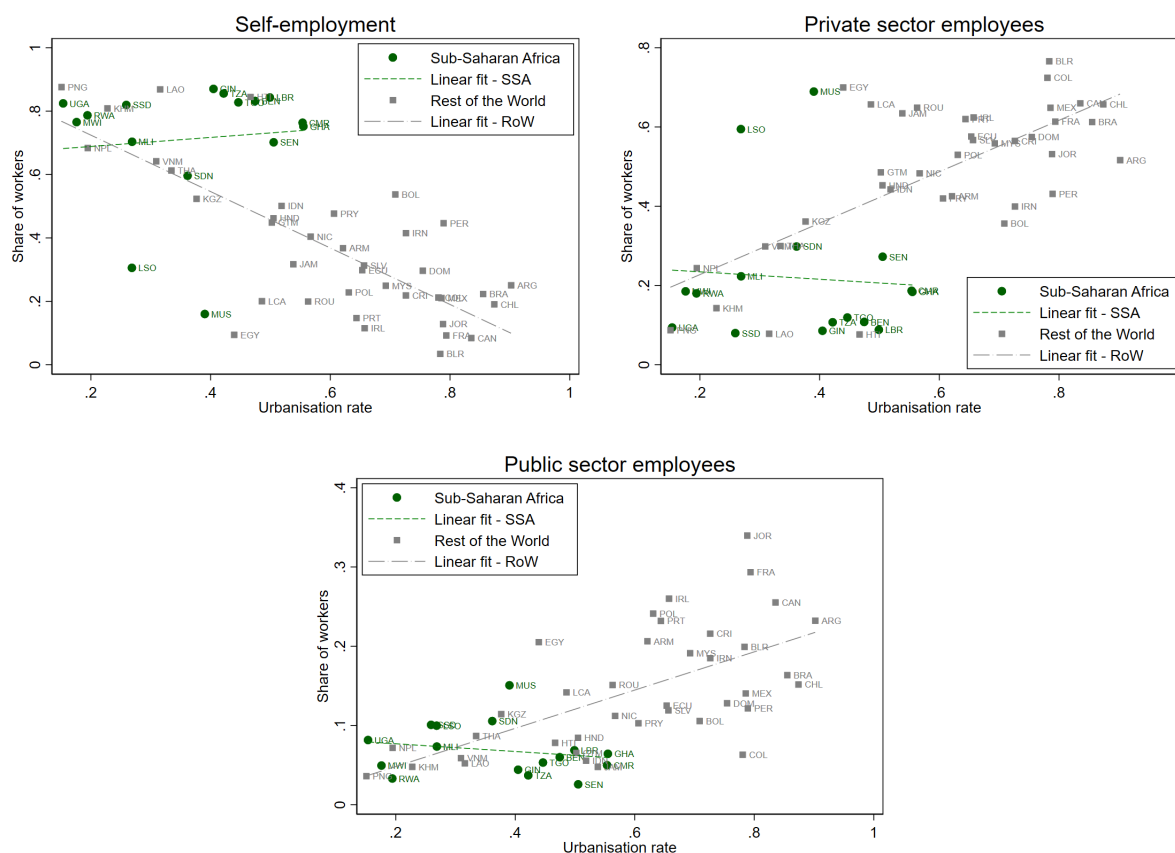
Note: The sample is working age population, currently in work. Self-employed workers include unpaid family members. Regions: SSA = Sub-Saharan Africa; LAC = Latin American and Caribbean; SEA = South East Asia and Pacific; ECA = Europe and Central Asia (excluding high-income countries); MENA = Middle East and North Africa; HIC = North America and high-income European countries. Source: Jobs of the World Data.

In contrast, wage employees show a more uniform pattern across country groups. The services sector is universally the largest sector of wage employment, ranging from 56% in South East Asia to 75% in high-income countries. The share of agriculture among wage workers is small even in low-income countries, and it falls further with the level of development. The share of manufacturing is similar across countries but with a distinct hump shape: the manufacturing sector is the smallest in Sub-Saharan Africa and high-income countries (21% and 23%, respectively), reaching about one third in South East Asia, and Europe & Central Asia.

Given the nature of self-employment work in LICs and the importance of subsistence agriculture, the reallocation from self-employment to private wage employment might be driven purely by a country's degree of urbanisation. Indeed, Figure 3.3 shows that the share of self-employed workers falls with the level of urbanisation for most countries. However, Sub-Saharan African countries deviate from this pattern in a specific way. In that region, the self-employment share remains fairly stable even when the urbanisation rate increases from under 20% in Uganda to above 50% in Ghana. Similarly, the share of private and public workers is independent of the share of urban population. The fact that

even most urbanised economies in our SSA sample retain a substantially higher share of workers in self-employment suggests that the rural/urban divide alone cannot explain an extremely high prevalence of subsistence work in the SSA.

Figure 3.3: Employment composition and the level of urbanisation



Note: The sample is working age population, currently in work. Self-employed workers include unpaid family members. Source: Jobs of the World Data.

Overall, a shifted transformation profile in SSA is a first piece of evidence that the SSA labour markets are structurally different from other developing countries, even when levels of development are similar. These differences become particularly stark when analyzed by gender, which is the central focus on the remaining part of the paper.

3.2 Demographic composition by sector

The empirical patterns presented above showed that employment trends diverge between Sub-Saharan Africa and comparable middle-income countries, and that this divergence is not resolved by urbanisation alone. This subsection turns from *how large* each sector is to *who works in it*, examining the demographic and human capital profile of workers in the public, private, and self-employment sectors. To do so, we use micro data for SSA and contrast it against Latin America and the Caribbean (LAC) - a close comparison group with higher incomes on average, but also some overlap with SSA.

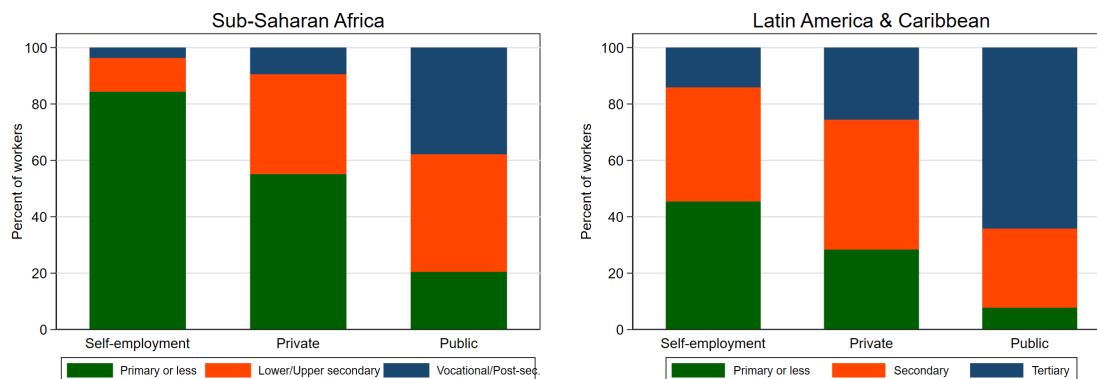
Educational attainment

Figure 3.4 presents the distribution of educational attainment across the sectors in the two regions. Because SSA workers have, on average, lower educational attainment than their LAC counterparts, every employment sector in the region has a higher share of workers with primary education or less. Despite this level difference, the two regions share the same *ordering* of sectors by education: Public sector hires the largest share of highly-educated workers, followed by the private sector, with self-employment employing the lowest share of highly-educated workers. Conversely, self-employment has the highest share of low-educated workers, followed by the private sector, with the public sector employing the fewest.⁴

This ordering is not specific to developing regions. In OECD countries, roughly 40% of public sector workers hold at least a graduate-level degree, reflecting a similar positive selection of educated workers into public employment (OECD, 2025). The pattern also matches direct microevidence on education in public employment in high-income economies: Gomes and Kuehn (2024) show that the over-representation of highly-educated workers in the public sector, relative to the private sector, holds across the United States, the United Kingdom, France, and Spain and across education groups, suggesting that positive educational selection into public employment is a structural feature of the sector rather than an artifact of any one country's civil service design.

⁴Our findings align well with the “pecking order” presented in Gindling and Newhouse (2014) across 74 developing countries. They show that household welfare and education is the highest among employers, followed by wage and salaried employees, then non-agricultural own-account and unpaid family workers.

Figure 3.4: Education composition, by sector and region



Note: The sample includes working-age individuals currently in work. Self-employment sector includes unpaid family workers. Public sector includes state-owned enterprises and parastatals. Source: Authors' computation based on micro data from SSA and LAC.

What differs between SSA and LAC is not the ranking of sectors by education, but the composition within each sector once we account for the fact that the overall educational attainment is lower. In LAC, the private sector is formed mainly of workers with lower/upper secondary education, while the public sector employs disproportionately highly-educated workers. In SSA, by contrast, private sector employees are more likely to have only primary education, and it is the public sector that captures the bulk of the region's middle-educated workers. In other words, lower overall educational attainment in SSA does not just shrink the pool of workers eligible for wage employment; it also compresses the private sector downward in the education distribution, leaving the public sector as the primary destination for workers with high and mid-level human capital (Rud and Trapeznikova, 2022).

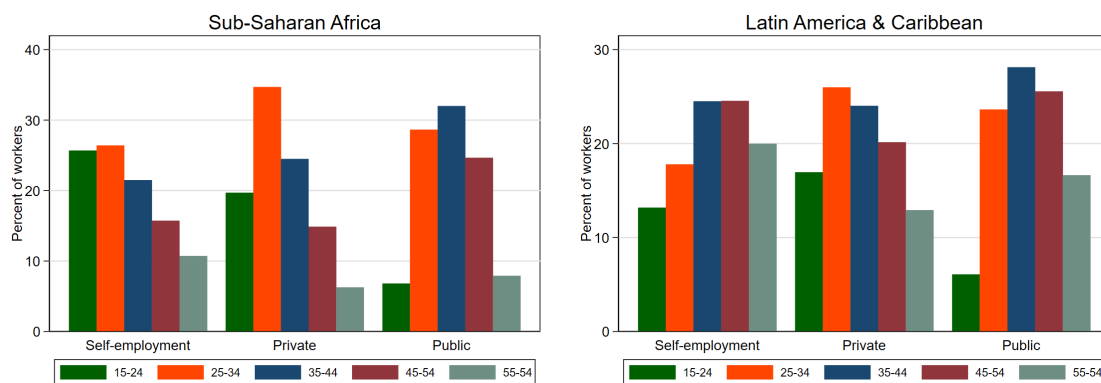
This positive selection on education into the public sector helps explain a puzzle that has drawn growing attention in the labour literature: unemployment rates that rise, rather than fall, with educational attainment. For example, Girsberger and Méango (2022) show that educated workers in urban Burkina Faso and Senegal are frequently willing to remain unemployed rather than accept informal or self-employment work, because they are effectively queuing for scarce public and formal private sector jobs. In a related paper, Méango and Girsberger (2026) provide direct evidence on the strength of this queuing behaviour by eliciting stated preferences from high-ability students in Côte d'Ivoire and

estimate the distribution of ex ante returns and willingness-to-pay associated with public sector employment. Their results confirm that a substantial share of high ability students place a sizeable premium on public sector jobs specifically, rather than on wage employment in general.

Age distribution

Age composition varies systematically across sectors, potentially reflecting differences in job requirements that favour younger or older workers. Figure 3.5 presents the age distribution of workers within each sector and region. The workforce in Sub-Saharan Africa is considerably younger than in Latin America&Caribbean, consistent with it being the youngest region globally. Moreover, young people in LAC delay entry into wage employment to complete their education, while in SSA many teens cannot afford to do so, entering the labour market earlier.⁵ This aligns with the education story above: many young SSA workers enter the workforce with less than secondary education, and, lacking the skills required for formal employment (which is often synonymous with the public sector in this region), are much more likely to end up in self-employment.

Figure 3.5: Age composition, by sector and region



Note: The sample includes working-age individuals currently in work. Self-employment sector includes unpaid family workers. Public sector includes state-owned enterprises and parastatals. Source: Authors' computation based on micro data from SSA and LAC.

The public sector, in both regions, tends to employ middle-aged workers: individuals aged 35–54 are over-represented in public employment relative to their share of the

⁵The World Bank's Africa Human Capital Plan estimates that approximately one million young people enter the labour force across Africa every month (World Bank, 2019), thereby increasing labour market pressures within this age group.

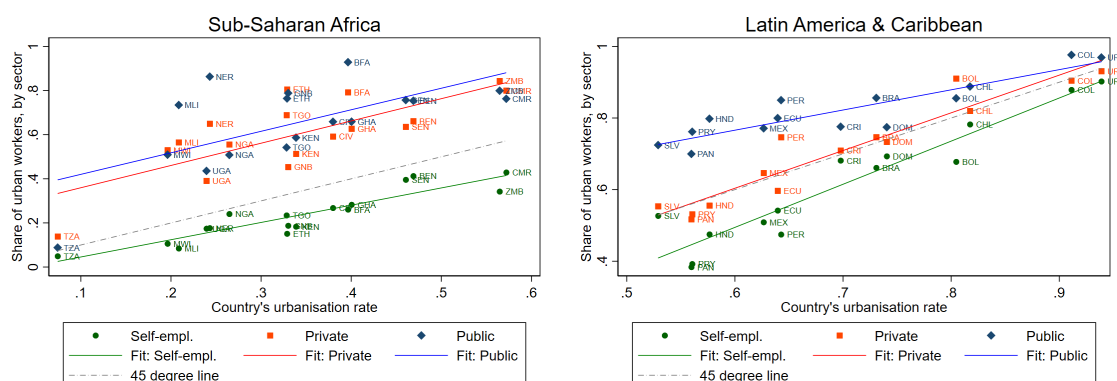
overall workforce, consistent with the sector's preference for higher skills and work experience built up over a career. The private sector, on the other hand, over-hires workers aged 25–34 relative to their workforce share – a pattern that is especially pronounced in SSA. Older workers (55+) are under-represented in private employment in both regions: they are either absorbed by the public sector or left with self-employment as the default option.

Two features therefore distinguish SSA from LAC in age composition: a large share of younger workers in the population who are more likely to end up in self-employment, and the lack of private sector jobs for middle-aged and older workers, suggesting that the private sector is not benefiting from the worker skills accumulated over their careers.

Rural-urban divide

Some of the differences between employment sectors can be tied to nature and location of the economic activity. As we shown above, self-employment in low-income countries, and SSA in particular, is predominantly rooted in subsistence agriculture and is more likely to take place in rural areas. To understand the role that rural/urban residence plays for the sector of employment, Figure 3.6 plots the urbanisation rate of each sector against the overall urbanisation rate of the country, with the dashed line delineating whether a sector is more or less urbanized than the country as a whole.

Figure 3.6: Share of urban workers, by sector and region



Note: The sample includes working-age individuals currently in work. Self-employment sector includes unpaid family workers. Public sector includes state-owned enterprises and parastatals. The dashed line is the 45 degree line, showing whether a sector is more or less urbanized than the country as a whole. Source: Authors' computation based on micro data from SSA and LAC.

Public and private employment are more urbanised, while self-employment is consistently less urbanised than the national average, across all countries in the sample in both regions. In Sub-Saharan Africa, public and private sectors are close to each other in their location aspect, while a considerable gap in urbanisation rates is found between wage employment and self-employment. Consistent with the evidence presented in subsection 3.1, this gap does not close as countries urbanise further; if anything, it widens, as self-employment urbanises more slowly than the national trend. In contrast, LAC countries show a markedly different pattern: sector-specific urbanisation gaps narrow substantially between sectors as countries urbanise, suggesting that rural workers are increasingly absorbed into non-self-employment activities, and conversely self-employment activities become less rural.

Gender composition

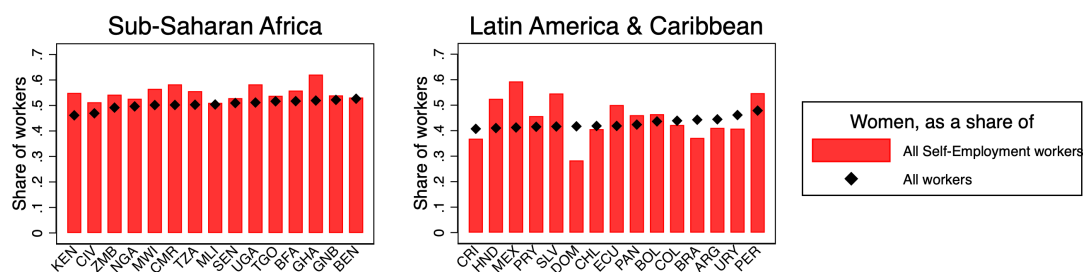
Figure 3.7 shows women's share of employment within each sector, with countries ordered by female share of the overall workforce. The gender pattern in SSA is the sharpest point of divergence from LAC uncovered in this subsection. Across all SSA countries in the sample, women are consistently over-represented in self-employment and under-represented in both the public and private sectors. This is in line with the existing literature showing that women in low-income economies are disproportionately absorbed into informal and subsistence activities ([International Labour Organization, 2009](#)).

Countries with the highest female-to-male participation ratio in our SSA sample (Guinea-Bissau, Benin) show narrower representation gaps in public and private employment, approaching parity, suggesting that higher share of women in the workforce is necessary, though evidently not sufficient on its own, for closing sectoral representation gaps (a point we return to directly in Section 4).

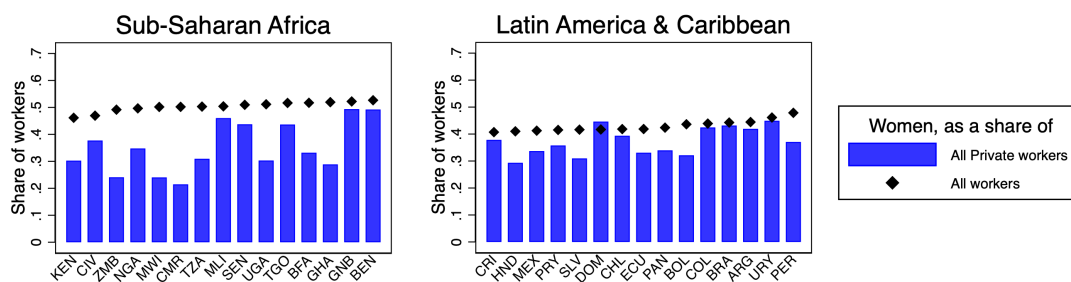
LAC presents a markedly different pattern. Despite lower overall female labour force participation than SSA, women in LAC are over-represented in the public sector, and their representation gap in the private sector narrows as female-to-male participation ratio rises (with Peru as a notable exception). This aligns with existing evidence that the public sector in Latin America has reached gender parity in raw headcounts, even as occupational segregation persists within the sector, leaving women under-represented in

Figure 3.7: Women's share, by sector and region

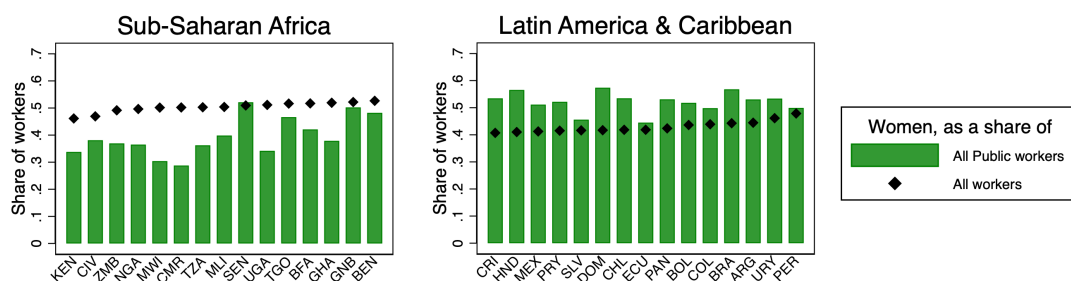
(a) Self-employment



(b) Private Sector



(c) Public Sector



Note: The sample includes working-age individuals currently in work. Self-employment sector includes unpaid family workers. Public sector includes state-owned enterprises and parastatals. Countries ordered by share of women in the workforce. Source: Authors' computation based on micro data from SSA and LAC.

managerial and decision-making roles ([Naranjo Bautista et al., 2022](#)).

The contrast between the two regions is therefore not simply that SSA women fare worse than LAC women in every sector, but that the two regions' public sectors play structurally different roles. In SSA, gender dynamics in the public sector track those in the private sector fairly closely, with both falling well short of parity; in LAC, the public sector has its own distinct gender dynamic, achieving parity (or exceeding it) largely independently of women's overall workforce representation. As female workforce participation rises in LAC, the resulting gains concentrate in narrowing the private/self-employment gap rather than in the public sector, which has already converged. In SSA, by contrast, a rise in the female share in the overall workforce is associated with gains in *both* public and private sector representation simultaneously. However, as the following sections will show, these gender gaps in SSA are still far from closing.

Taken together, the four demographic dimensions considered above - education, age, location, and gender - point to a common mechanism: workers who lack the human capital, access to urban labour markets, or bargaining position associated with wage employment end up in self-employment in SSA at a rate that is much higher than in other countries even at comparable stages of development. [Section 4](#) builds directly on these findings, examining in detail how men and women are allocated across sectors worldwide and how the SSA pattern compares to this global benchmark.

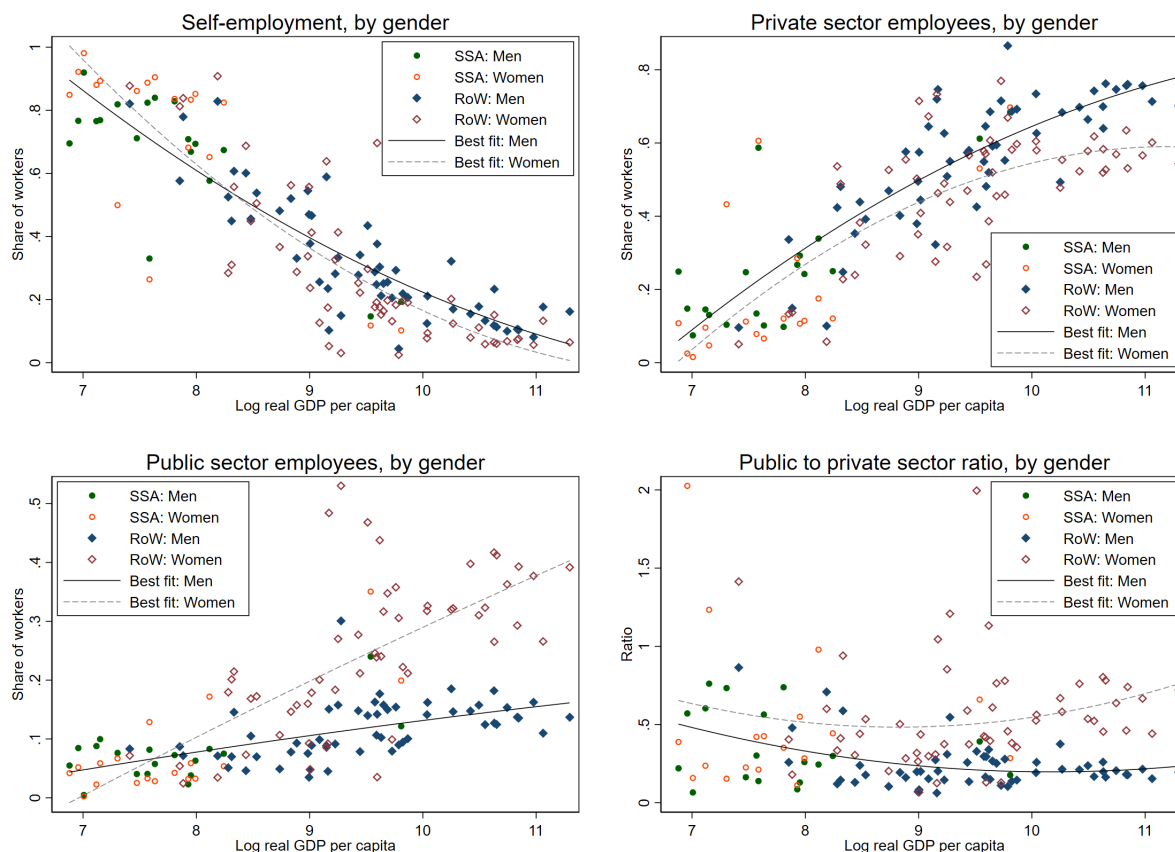
4 Employment patterns by gender

[Section 3](#) established that sector composition shifts with development, and that SSA departs from the global pattern in the pace of that shift. This section asks whether the same divergence holds once we split the picture by gender. We first document how men's and women's selection into public, private, and self-employment evolves with GDP per capita across the world, before turning to the SSA case specifically.

4.1 Men and women's employment across the world

Figure 4.1 presents the global sectoral distribution of the workforce separately for men and women. The top left panel shows that women in low-income countries, and especially in SSA, are concentrated in self-employment and household-led business activities. As countries move up the income ladder, women's probability of transitioning from self-employment to wage employment rises relative to men's, consistent with existing evidence on the relationship between development and women's access to formal employment (World Bank, 2012). Yet, this overall convergence masks very different dynamics between the two wage sectors. In most countries, women's probability to be selected in private wage employment is consistently below that of men's, and this gap *widens* rather than narrows among high-income countries (see the top right panel Figure 4.1). This widening of the gender gap in private employment can be explained by women choosing the public sector over the private sector in the vast majority of middle-income to high-income countries.

Figure 4.1: Gender differences in employment composition and the level of development



Note: The sample is working age population, currently in work. Self-employed workers include unpaid family members. Source: Jobs of the World Data.

The most visible gender segregation can be seen in the share of the public sector. The bottom left panel of Figure 4.1 shows that women are increasingly more likely to work in the public sector as the level of GDP per capita increases. This is consistent with global administrative data: women make up 46% of public sector employees worldwide, and the female share in public employment typically exceeds the female share in private employment across income levels (World Bank, 2018a). This can be seen in the bottom right panel of the graph as well, as the ratio of public to private sector workers is considerably higher for women than for men for most countries in our sample.

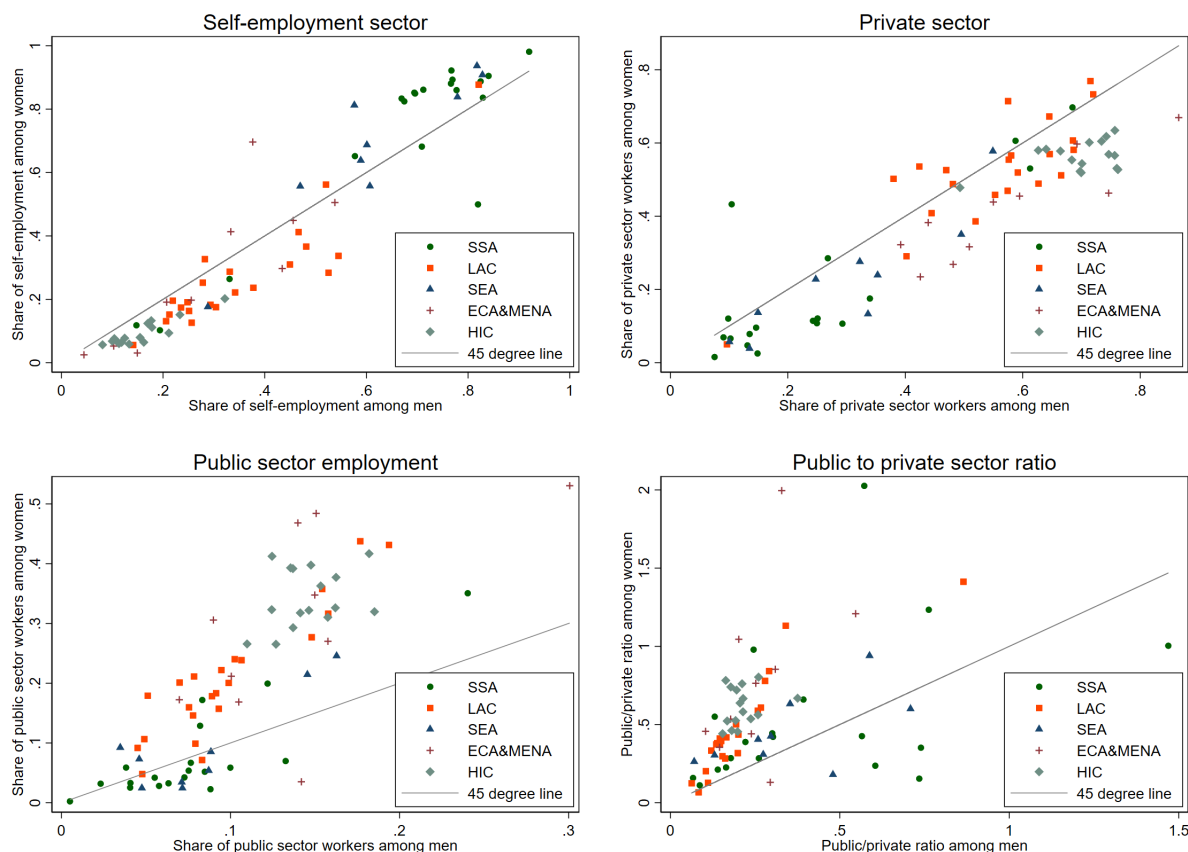
Figure B.3 in Appendix B shows virtually identical selection patterns when plotting gender-specific shares of the private (correspondingly, public) sector against its size, instead of the level of development. There is a stable gender gap in private sector shares

that does not diminish with the growth of private employment. In the public sector, we see a crossing pattern with the over-representation of men in SSA countries and over-representation of women in LAC.

The patterns documented above describe an average global trend that does not hold in SSA. Elsewhere in the world, rising incomes have coincided with substantial improvements in women's working conditions and a declining reliance on self-employment. The evidence for SSA points in the opposite direction: women face persistently worse labour market conditions than men across the region, being more likely to work in self-employment and less likely to select into public or private sector compared to men.

Figure 4.2 summarises these patterns directly by plotting men's and women's sector shares against one another across countries. The top left panel of Figure 4.2 shows that women's self-employment shares are above those of men in low-income countries, while the opposite holds in richer economies. The share of private wage employment (the top right panel of the same figure) is consistently lower among women than among men for the vast majority of our sample. The public sector, however, is an exception. The bottom left panel of Figure 4.2 show that the share of public sector employment is much higher among women compared to men virtually everywhere in the world, with the exception of SSA.

Figure 4.2: Gender selection into employment sectors: Women vs. men shares, of all workers



Note: The sample is working age population, currently in work. Self-employed workers include unpaid family members. Source: Jobs of the World Data.

The public sector is where the divergence between Sub-Saharan countries and the rest of the world is sharpest. Public sector selection continues to favour men throughout the SSA income range, and the gender gap in public sector selection shows no sign of narrowing even among wealthier SSA economies, in contrast to the almost universal over-representation of women in the public sector in other regions. However, once self-employment is set aside and we compare the relative role of public and private sectors among *wage employees*, the female over-representation pattern re-emerges.⁶ The bottom

⁶In our companion paper [Gemici et al. \(2026\)](#), we show that, conditional on working for a wage, women in SSA have a higher probability to select into the public sector than men, once we control for observable characteristics. Moreover, we find that this selection is even stronger for married women, suggesting that the public sector offers other amenities - such as job security, regular working hours, and lower demand on worker's time - that married women find attractive.

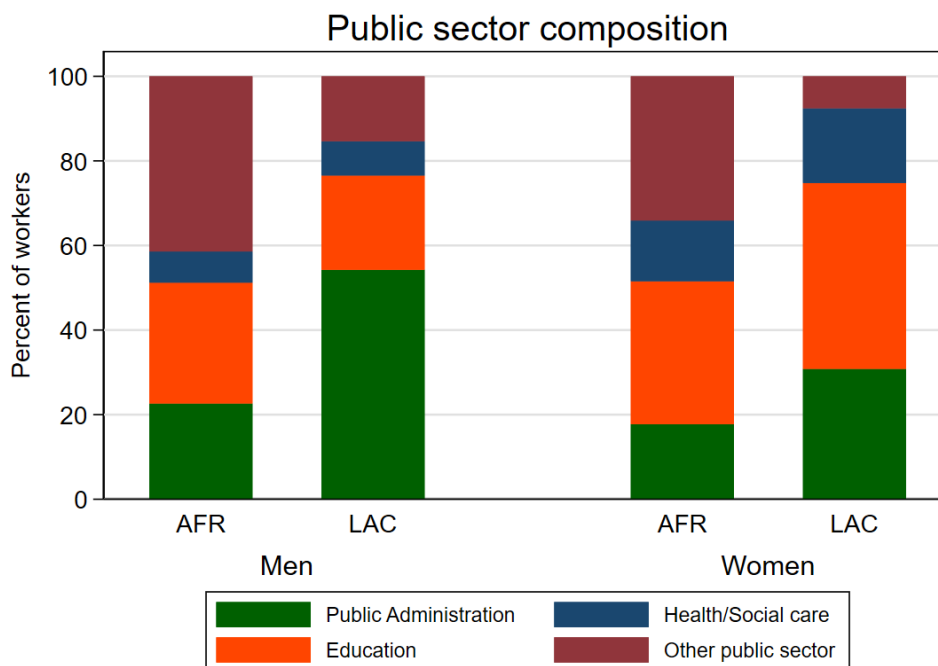
right panel of Figure 4.2 shows that the public-to-private ratio among women is above that among men in most SSA countries (although some SSA countries – such as Benin, Guinea, Mali, South Sudan, and Togo, remain below the 45 degree line). Overall, this suggests that the relative sectoral dynamics between public and private employment in SSA tracks the rest of the world reasonably well – it is the presence of *self-employment* both in its magnitude and the skewness towards women that makes the SSA region stand out.

One candidate explanation is sectoral: women working outside self-employment in SSA are more likely to be employed in services (Tingum, 2016), an industry that accounts for a substantial share of public sector jobs. If services remain women’s main point of entry into wage employment, then a public sector with a comparatively large services footprint will mechanically look more favourable to women than the private sector does, even while the public sector as a whole remains male-dominated in absolute terms.

We test this hypothesis using micro data from SSA and LAC to decompose public sector workers by their industry of employment. The three key industries are public administration, education, and health and social care, which account for about 85% of public sector employment. Figure 4.3 contrasts the composition of the public sector workers between the two regions by gender.

The differences between the regions arise mainly in the relative size of public administration and the residual category. The share of the health and education services - the two sectors that include stereotypical female professions like teachers and nurses - are similar between the two regions, thus suggesting that the under-representation of women in SSA’s public sector is not due to its different occupational composition. In fact, the gender differences in the share of education (32% vs 38%) and health workers (8% vs 16%) in Sub-Saharan Africa are smaller than in Latin American (22% vs 44% and 8% vs 18%, respectively). This is consistent with the fact that Sub-Saharan Africa is the only region in the world where women make up a minority of primary school teachers, comprising just 47% of the primary teaching force compared to roughly 78% in Latin America and 90% in Central Asia (with even lower percentages for secondary school teachers) (UNESCO, 2024).

Figure 4.3: Public sector composition, by gender and region



Note: The public sector includes state-owned enterprises. Three main industries are considered: public administration, education and health sectors; while the remaining public sector workers are grouped into the other category. Source: Author's calculations based on micro data for SSA and LAC.

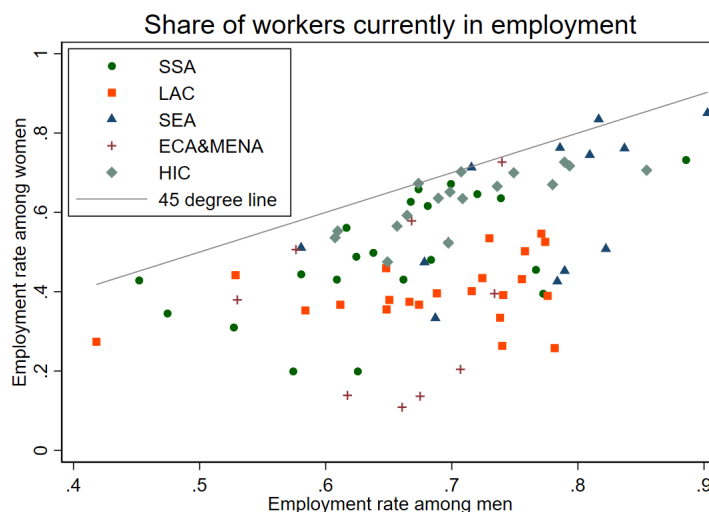
Overall, this subsection showed that SSA women are over-selected into self-employment relative to men, and relative to the rest of the world, even after accounting for the sector's declining role as economies develop. In the following subsections we try to understand why this is the case by examining the gender gaps in labour force participation (Subsection 4.2), educational attainment (Subsection 4.3) and pay (Subsection 4.4).

4.2 Female labour force participation and sectoral selection

Participation dynamics vary markedly across regions. Figure 4.4 shows average labour force participation (LFP) rates by gender for major country groupings. In the Jobs of the World dataset, we use "in work" indicator to capture differences in labour force participation between men and women. This indicator shows the share of working age population currently employed, including self-employed and unpaid family labour, but excludes un-

employed workers. This is unlikely to make a big difference for the poorest economies as unemployment (as measured by a standard ILO definition) is known to be low in the region (Fields, 2011; Rud and Trapeznikova, 2021)

Figure 4.4: Labour force participation: Women vs. men

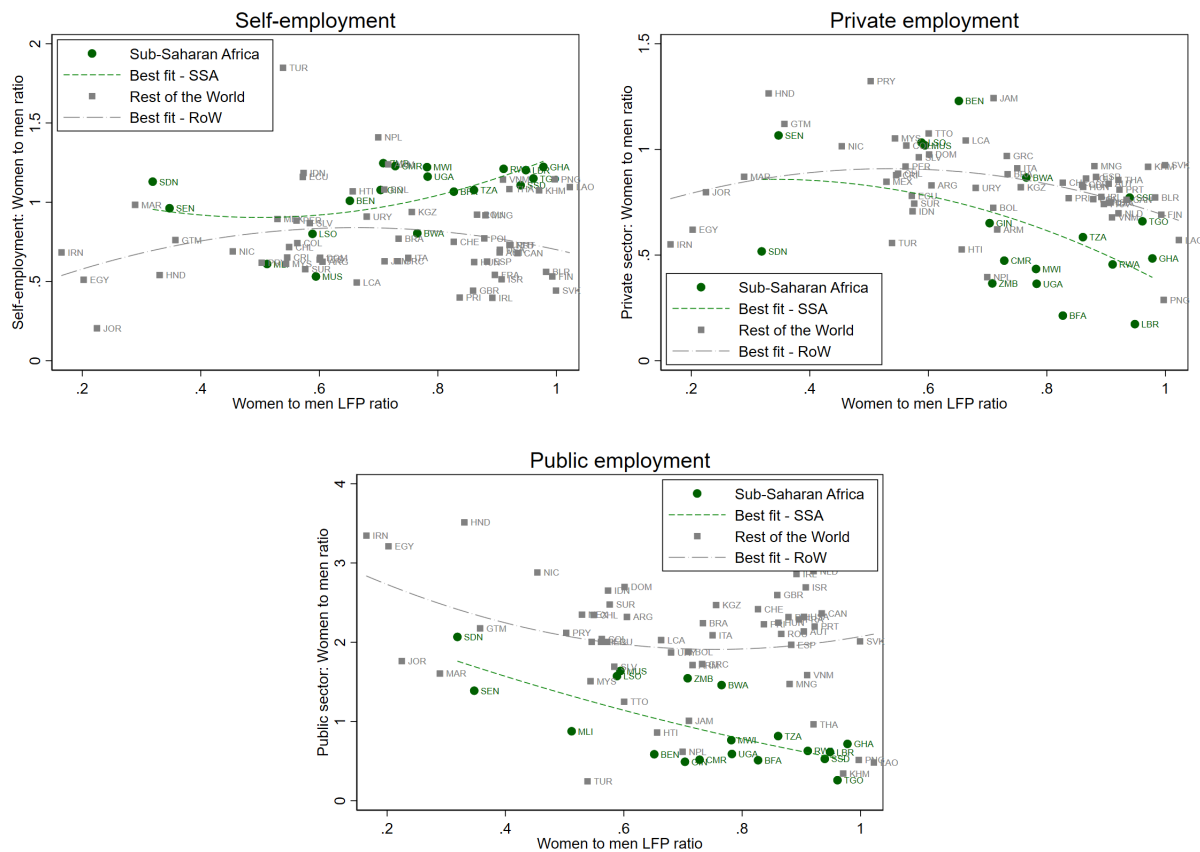


Note: The sample is working age population. The employment rate shows the share of individuals currently in work, including self-employed workers and unpaid family members. Source: Jobs of the World Data.

For most countries, the labour force participation of women is significantly lower than that of men, which is especially true for middle-income countries, such as Latin America and Middle East and North Africa. Figure B.4 in Appendix B shows the well known U-curve of female LFP versus the level of GDP per capita (Goldin, 1995; Mammen and Paxson, 2000; Tam, 2011).

Sub-Saharan Africa features labour force participation rates similar to high-income countries: a relatively small gender gap in LFP rates, alongside high participation of both men and women. This is, at first glance, good news: a large body of literature treats women's labour force participation as a precondition for closing gender gaps in access to good jobs (World Bank, 2012). Yet, Figure 4.5 shows that SSA countries with higher female-to-male participation ratios do not follow the global pattern of translating this into more equal sectoral selection. Instead, higher female LFP translates into higher relative selection into self-employment.

Figure 4.5: Relative selection into employment sector by labour force participation



Note: The graphs plots the ratio of women's to men's employment shares in a given sector against the women-to-men ratio of the participation rates. Source: Jobs of the World Data.

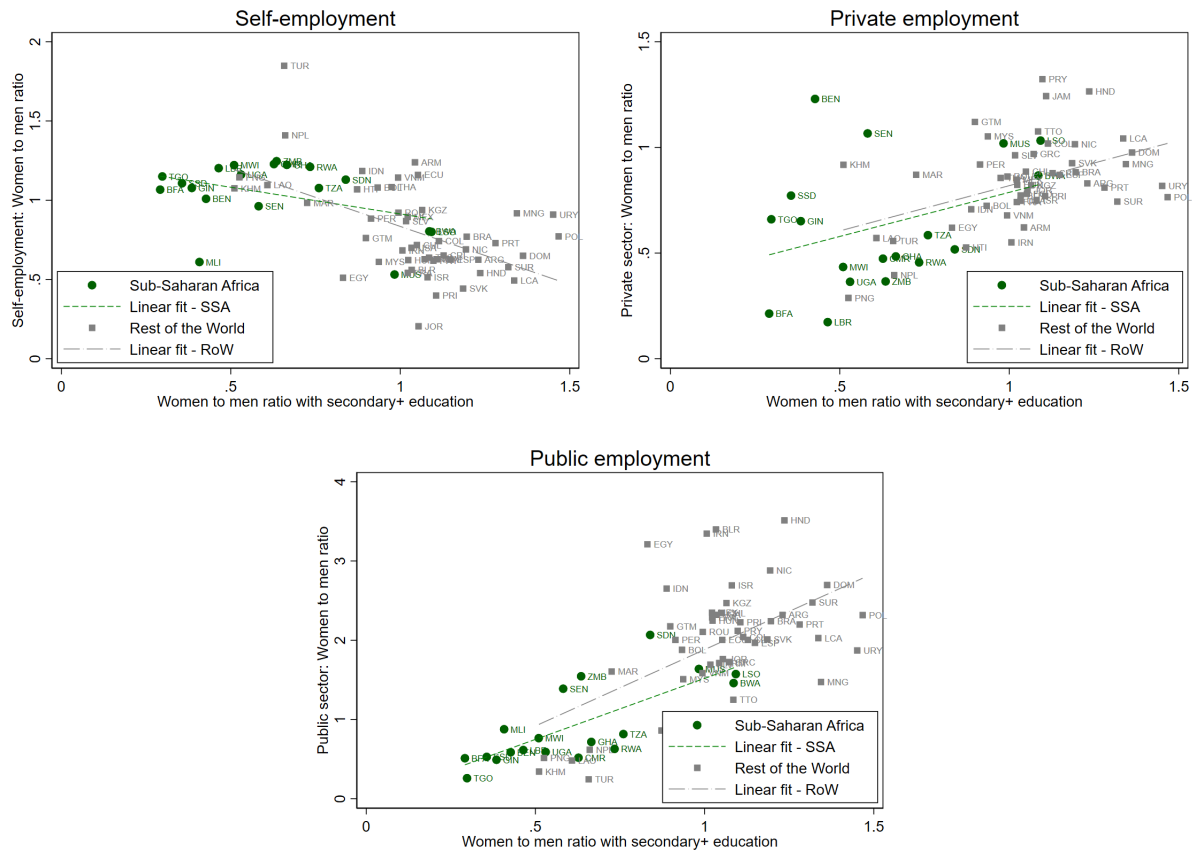
The women-to-men ratio in the private sector is predominantly below one, falling below 50% for most countries in Sub-Saharan Africa, suggesting that the private sector strongly favors men in the region. Again, the difference even starker in the public sector: women are, on average, twice as likely as men to work in the public sector outside SSA, while the ratio is again below one in the poorest region of the globe. Moreover, the ratio of women to men in both private and public sectors in SSA falls substantially as countries become more gender equal in terms of labour force participation. Taken together, the region's combination of already-high female participation and persistently high female self-employment points to structural barriers to public- and private-sector access that operate independently of participation decisions, motivating the closer look at education that follows.

4.3 Educational attainment

A vast literature in development economics documents a positive link between human capital and economic growth, as well as the differences by gender across the world ([Barro and Lee, 2013](#); [Klasen and Lamanna, 2009](#); [World Bank, 2012](#); [Dinkelman and Ngai, 2022](#)). Also in our sample, higher shares of educated men and women in a country's workforce are associated with higher selection of both genders into paid employment (see [Figure B.5](#) in [Appendix B](#)). However, as we have shown in [Section 3.2](#), educational requirements vary greatly between employment sectors, with the public sector having a more educated workforce. Hence, one of the reasons for differential selection into employment sectors between men and women might be due to compositional differences in educational attainment across genders, which we turn to next.

[Figure 4.6](#) shows how the relative selection into each sector of employment (i.e. the ratio of sector s employment share for women to the corresponding share for men) varies with women's educational attainment relative to men's in each country. We use the share of individuals who have completed secondary education or higher as our measure of an educated workforce, since only about 2% of individuals in SSA have attained tertiary education. The first point to note from these graphs is that women in SSA are considerably less educated than men in the region: the share of workers with at least secondary education is roughly double among men what it is among women. Outside SSA, the educational composition of the workforce is far more similar across genders, with many countries showing higher educational attainment among women than among men.

Figure 4.6: Relative selection into employment sector by share of educated workers



The graphs plots the ratio of women's to men's employment shares in a given sector against the women-to-men ratio of the corresponding share of working-age women (men) with at least secondary education. Source: Jobs of the World Data.

Globally, women who are relatively better educated than men gain more relative access to both wage sectors, and correspondingly lower relative access to self-employment. The public sector again departs from the private sector in showing a much stronger relationship between relative selection into the sector and relative educational attainment, suggesting that the public sector rewards relative educational gains for women in a way the private sector does not.⁷

Figure 4.6 shows that Sub-Saharan Africa stands out from the rest of the world in two ways. First, it sits at the lower end of the distribution of relative educational attainment,

⁷Using microdata from France, Spain, UK, and US [Gomes and Kuehn \(2024\)](#) show that while the overall public sector wage premium is larger among low- and middle-skill workers, the the gap between women's and men's public-sector wage premia is always larger among college-educated workers, accounting for the over-representation of educated women in the public sector relative to men.

with women considerably less educated than men compared to other regions, resulting in lower relative shares of public and private employment. Second, the region also departs from the global pattern in a more fundamental sense: even as the gender gap in education narrows, self-employment does not decline correspondingly. That is, within SSA, countries where men and women have more similar educational attainment still tend to show a relatively high share of women in self-employment.

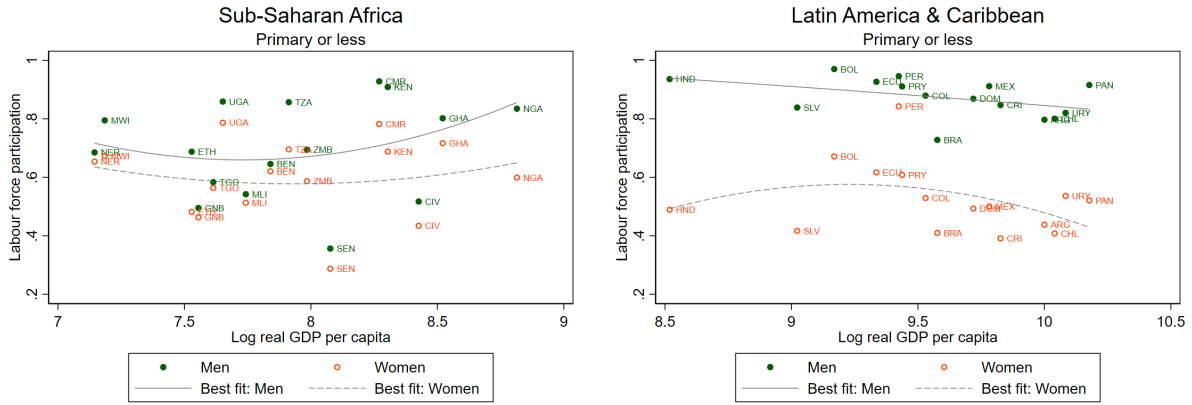
The patterns above show that SSA's low average female educational attainment is part of the story behind women's over-representation in self-employment. In addition to that, education interacts with the labour force participation in SSA so that the region's lower average female educational attainment is compounded, rather than offset, by its participation patterns. To see that, we plot labour force participation for men and women by education group using micro data from SSA and LAC (Figure 4.7).

Low-educated women in SSA participate in the labour market substantially more than their LAC counterparts, while SSA women with vocational education or above participate less than their LAC peers. As a consequence, the gender gap in participation varies by education in opposite directions across the two regions: in SSA the male–female gap is small among the low-educated and widens among the highly-educated, while in LAC the reverse holds, with the largest gender gaps among the low-educated and the smallest among the highly-educated.

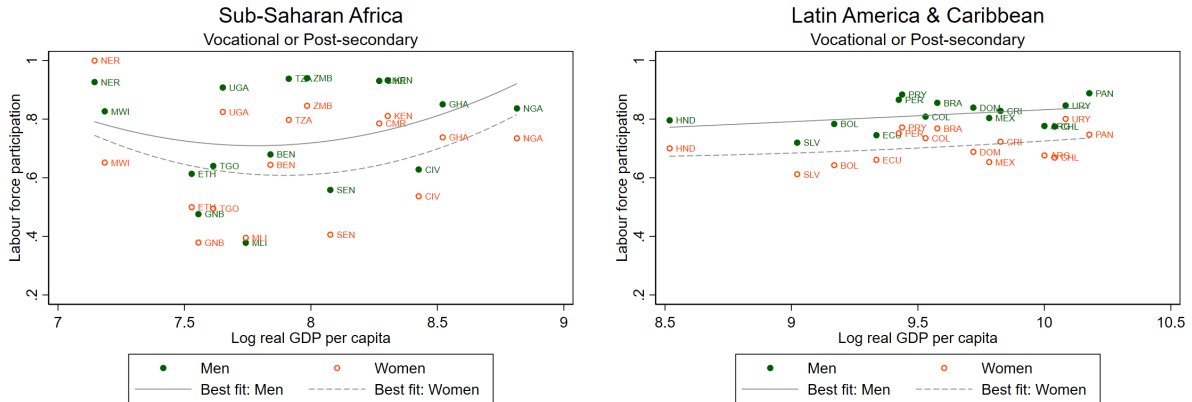
The combination of relatively high participation among low-educated SSA women and relatively low participation among highly-educated SSA women (relative to men, and relative to LAC) produces a less-educated female workforce on average, which is in turn more likely to be selected into self-employment. This pattern is consistent with the idea that, given the greater economic vulnerability of SSA households, less-educated women have fewer opportunities to withdraw from the labour force and are instead pushed into subsistence self-employment out of necessity rather than choice ([International Labour Organization, 2009](#); [Margolis, 2014](#)). It also echoes evidence that motherhood pushes women in the region toward informal and self-employed work specifically, rather than out of the labour force altogether ([Berniell et al., 2021](#)).

Figure 4.7: Labour force participation by education group

(a) Individuals with primary education or less



(b) Individuals with vocational or post-secondary education



Source: Authors' computation based on micro data from SSA and LAC.

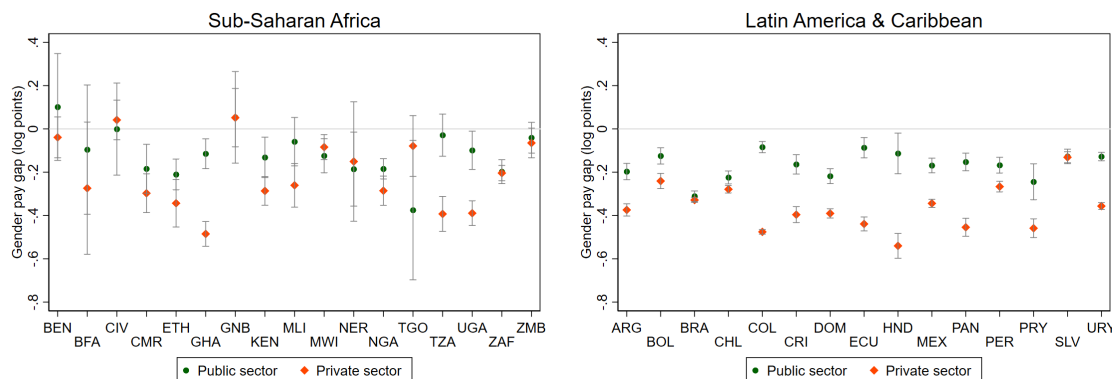
4.4 Gender pay gaps by sector

Jobs of the World Data, being based on DHS and IPUMS, do not provide wage information. Therefore, we use micro data from Sub-Saharan Africa and Latin America to examine the differences in pay across genders and sectors. In this subsection, we show that women who move out of self-employment in poor economies face a second, distinct barrier: their wages are significantly lower than those of men even conditional on observables.

Figure 4.8 plots estimated female log-wage coefficients from country- and sector-specific wage regressions that control for educational attainment, age, marital status, industry, and location of residence. One feature that stands out is that the gender wage gaps are

significantly larger (by absolute value) in the private sector than in the public sector. This holds true in both Sub-Saharan Africa and Latin America, although the results are noisier in SSA due to a smaller sample (and sector) size.

Figure 4.8: Gender wage gaps by sector, conditional on observables



Note: These graphs show the coefficients on female dummy from log monthly earnings regressions run separately for each country and sector. We control for education, age, age squared, marital status, urban/rural location, region of residence, and industry. The vertical bars represent 95% confidence intervals. Source: Authors' computation based on micro data from SSA and LAC.

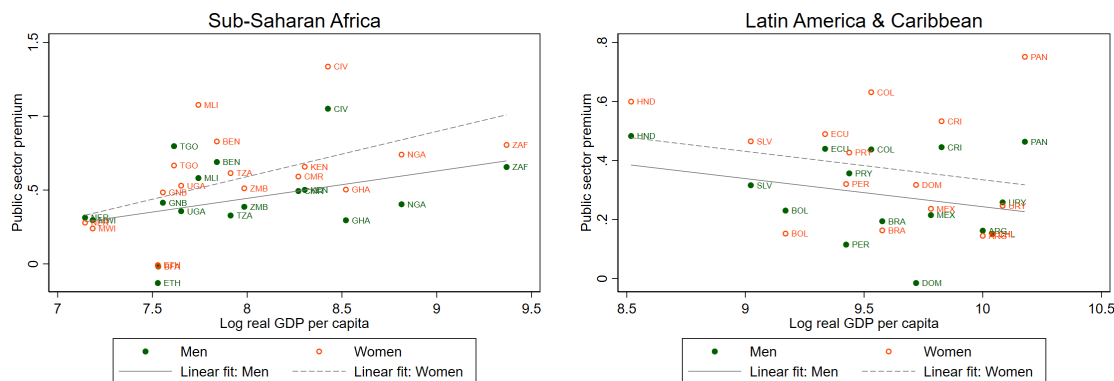
When comparing two regions, the public sector in SSA pays wages that are closer to parity with men than the government sector in LAC does, although not fully eliminating it.⁸ The reason for a smaller public-sector pay gap in SSA compared to LAC might be due to the positive selection - given the very small size of the public sector among all workers (including self-employed) and the extremely strong selection on education, it is conceivable that only the most skilled women are successful at getting public sector jobs.

Another way to present these results is by plotting the public sector premium by gender. The public sector in many countries pays a wage premium relative to the private sector, for men and women alike (Gindling et al., 2020; World Bank, 2018a; Gomes and Kuehn, 2024). Figure 4.9 shows that also in our sample the public sector wage premia persist even after accounting for differences in skills, age, and location. Moreover, this premium is systematically larger for women than for men in most countries in the sam-

⁸This is consistent with the persistence of the public-sector gender pay gaps documented internationally despite an overall narrowing of gaps over time (World Bank, 2012).

ple, particularly in SSA, where the average public premium is 44 log points for men and 58 log points for women (compared to 28 and 36 log points in LAC, respectively).

Figure 4.9: Public sector wage premium for men and women, by GDP per capita



Note: These graphs show the coefficients on public dummy from log monthly earnings regressions run separately for each country and gender. We control for education, age, age squared, marital status, urban/rural location, region of residence, and industry. Source: Authors' computation based on micro data from SSA and LAC.

A larger public sector wage premium for women strengthens their incentive to seek public sector jobs, or to move from private to public employment where feasible, potentially reducing women's labour supply to the private sector relative to the public sector. Combined with the smaller gender wage gap documented above, this helps explain why women in SSA who reach wage employment are more likely to be found in the public than the private sector, particularly in the region's wealthier economies, where the gender difference in the public sector premium is largest.

4.5 Discussion of the results

The above evidence suggests that SSA's exceptional gender-employment profile is driven less by how women fare *within wage employment* and more by how few women reach wage employment in the first place. Sections 4.2 and 4.3 showed that neither rising female participation nor closing the gender education gap is sufficient on its own to move women out of self-employment and into the private sector. Closing this gap requires interventions on both the supply and demand side of the labour market, including shifts in social

norms and beliefs, expanded childcare support, and improved access to education (Heath et al., 2024). Structural and macroeconomic change can reinforce these efforts: both productivity growth (Zuazu, 2024) and greater trade openness (Wamboye and Seguino, 2015) have been linked to improved employment conditions for women in the region.

The fact that, conditional on entering wage employment, women in SSA follow the global pattern of a higher likelihood of working in the public sector relative to men is encouraging, and Section 4.4 suggests that wage setting itself reinforces this pattern: the public sector offers both a smaller gender wage gap and, for women specifically, a larger wage premium relative to the private sector than it offers men (Gindling et al., 2020; World Bank, 2018a). A shift of women’s wage employment toward the public sector could therefore meaningfully narrow gender gaps in labour market outcomes. This can only happen, though, if women can be drawn out of self-employment in the first place, which is precisely where SSA’s labour markets currently fall short.

5 Conclusion

In this paper we present a unifying picture on the structure of the labour markets in developing countries, focusing on the type of the employer - public and private wage sectors against own-account work, using aggregated and micro data. First, we show that the relationship between the sectoral composition of the workforce and GDP per capita (and urbanisation) is consistent with standard accounts of structural transformation: more developed economies offer greater opportunities outside self-employment, with larger private sectors and a public sector that plays an increasingly prominent role as employer, accounting for 20–30% of total employment in a number of middle- and high-income countries.

Sub-Saharan Africa departs from this pattern by showing a slower transition from self-employment to the private sector. Moreover, subsistence self-employment in SSA, while being mostly agriculture-based, remains prevalent even in comparatively urbanised settings. A more detailed analysis of workforce composition helps provide some explanations why SSA appears as an outlier. First, the self-employment sector tends to employ

less-educated workers in developing countries, so SSA's lower overall educational attainment results in a larger subsistence sector. Second, this is compounded by the region's younger workforce, since young workers would otherwise be expected to delay labour market entry to accumulate skills, but in SSA frequently cannot. Finally, beyond education and urbanisation, gender emerges as a significant determinant of sectoral composition in SSA: women are more likely than men to work in self-employment, are over-represented there and under-represented in both wage sectors.

A detailed comparison between Sub-Saharan African and Latin America based on micro-level data suggests that women's under-employment in SSA's public sector is not resolved by participation or education alone. Instead, SSA women combine higher labour force participation with markedly worse employment conditions, which include lower access to wage jobs and lower earnings when working for a wage. Taken together, our findings point to the public sector as a important lever for reducing gender inequality in developing labour markets; however, it can only happen conditional on the prior challenge of drawing women out of self-employment and into wage work in the first place.

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Appendix A Datasets

For microdata, we use and harmonise the following World Bank’s Living Standards Measurement Study (LSMS) datasets for SSA:

- Benin: Harmonised Survey of Household Living Conditions EHCVM 2018-2019;
- Burkina Faso: Harmonised Survey of Household Living Conditions EHCVM 2018-2019;
- Cameroon: Troisième Enquête Camerounaise Auprès des Ménages 2007;
- Côte d’Ivoire: Harmonised Survey of Household Living Conditions EHCVM 2018-2019;
- Djibouti: Enquête Djiboutienne Auprès des Ménages 2017 (EDAM, Djibouti Household Survey 2017)

- Ethiopia: Socioeconomic Surveys 2018-2019, 2015-2016, 2013-14;
- Ghana: Living Standards Survey VII 2016-2017, VII 2012-13;
- Guinea Bissau: Inquérito Harmonizado sobre as Condições de vida dos Agregados Familiares 2018-2019;
- Kenya: Integrated Household Budget Survey 2005-2006; Time Use Survey 2021
- Malawi: Integrated Household Survey 2019-2020, 2016-2017, 2010-2011; Integrated Household Panel Survey 2010-2013;
- Mali: Harmonised Survey of Household Living Conditions EHCVM 2018-2019; Agricultural Survey Integrated to Households Living Conditions 2017; Integrated Agricultural Survey 2014
- Niger: Harmonised Survey of Household Living Conditions EHCVM 2018-2019; National Survey on Household Living Conditions and Agriculture 2014 (Wave 2), 2011 (Wave 1);
- Nigeria: General Household Survey, Panel 2018-2019 (Wave 4), 2015-2016 (Wave 3), 2012-2013 (Wave 2), 2010-2011 (Wave 1);
- Senegal: Harmonised Survey of Household Living Conditions EHCVM 2018-2019;
- South Africa: Labor Force Survey (March and September waves) 2007;
- Tanzania: National Panel Survey 2020-21 (Wave 5), National Panel Survey 2014-15 (Wave 4), 2012-13 (Wave 3), 2010-11 (Wave 2), 2008-09 (Wave 1);
- Togo: Harmonised Survey of Household Living Conditions EHCVM 2018-2019;
- Uganda: National Panel Survey 2019-20, 2018-19, 2015-16, 2013-14, 2011-12, 2010-11;
- Zambia: Living Condition Monitoring Survey 2010.

Our sample sizes range from about 2,500 in Senegal and 10,000 in Togo to over 100,000 in Nigeria (over multiple years) and South Africa (two waves of 2007 only). However, given a very small share of population being in paid employment, the sample sizes used for wage regressions, (Section [4.4](#)) are typically much smaller, especially for the public sector: 150-350 in Togo, Benin, Guinea Bissau, Côte d’Ivoire, 500-1,000 in Niger and Mali, 1,000-2,000 in Burkina Faso, Cameroon, Kenya, Tanzania, and Uganda, and over 2,000 in Ethiopia, Ghana, Malawi, Nigeria, South Africa, and Zambia.

For Latin America, we use standard labour force surveys for Argentina, Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, Honduras, Mexico, Panama, Peru, Paraguay, El Salvador, Uruguay. We use data for 2018 (apart from Chile where only 2017 was available) as this is the closest year to most of the SSA surveys we have access to, and the results are not confounded by the Covid-19 pandemic. The sample size ranges from about 12,000 in Paraguay to over 300,000 in Brazil and 500,000 in Colombia. The sample sizes for wage regressions are 600-800 for Honduras and Paraguay, and well over 1,000 for all other LAC countries.

For Jobs of the World data, the countries in our sample are listed in Tables [A.1](#) - [A.5](#). We use country-level summary statistics, overall and split by gender.

Table A.1: Sub-Saharan African countries included in the sample

Country name	Country code	Income class	Year
Benin	BEN	LIC	2013
Botswana	BWA	UMIC	2011
Burkina Faso	BFA	LIC	1996
Cameroon	CMR	LMIC	2005
Ghana	GHA	LMIC	2010
Guinea	GIN	LIC	2014
Lesotho	LSO	LMIC	2006
Liberia	LBR	LIC	2008
Malawi	MWI	LIC	2008
Mali	MLI	LIC	2009
Mauritius	MUS	UMIC	2011
Mozambique	MOZ	LIC	2007
Rwanda	RWA	LIC	2012
Senegal	SEN	LMIC	2013
Sierra Leone	SLE	LIC	2004
Sudan	SDN	LMIC	2008
Tanzania	TZA	LIC	2012
Togo	TGO	LIC	2010
Uganda	UGA	LIC	2002
Zambia	ZMB	LMIC	2010

Table A.2: South East Asian countries included in the sample

Country name	Country code	Income class	Year
Cambodia	KHM	LIC	2008
China	CHN	LMIC	1990
Indonesia	IDN	LMIC	2010
Laos	LAO	LIC	2005
Malaysia	MYS	UMIC	2000
Mongolia	MNG	LIC	2000
Myanmar	MMR	LMIC	2014
Nepal	NPL	LIC	2011
Papua New Guinea	PNG	LMIC	2000
Philippines	PHL	LMIC	1990
Thailand	THA	LMIC	2000
Vietnam	VNM	LMIC	2009

Table A.3: Latin America and Caribbean countries included in the sample

Country name	Country code	Income class	Year
Argentina	ARG	UMIC	2001
Bolivia	BOL	LMIC	2012
Brazil	BRA	UMIC	2010
Chile	CHL	UMIC	2002
Colombia	COL	LMIC	2005
Costa Rica	CRI	UMIC	2011
Dominican Republic	DOM	UMIC	2010
Ecuador	ECU	UMIC	2010
El Salvador	SLV	LMIC	2007
Guatemala	GTM	LMIC	2002
Haiti	HTI	LIC	2003
Honduras	HND	LMIC	2001
Jamaica	JAM	LMIC	2001
Mexico	MEX	UMIC	2015
Nicaragua	NIC	LMIC	2005
Paraguay	PRY	LMIC	2002
Peru	PER	LMIC	2007
Puerto Rico	PRI	HIC	2010
Saint Lucia	LCA	LMIC	1991
Suriname	SUR	UMIC	2012
Trinidad and Tobago	TTO	UMIC	2000
Uruguay	URY	UMIC	1996

Table A.4: Europe & Central Asia and Middle East & North Africa (ECA & MENA) countries included in the sample

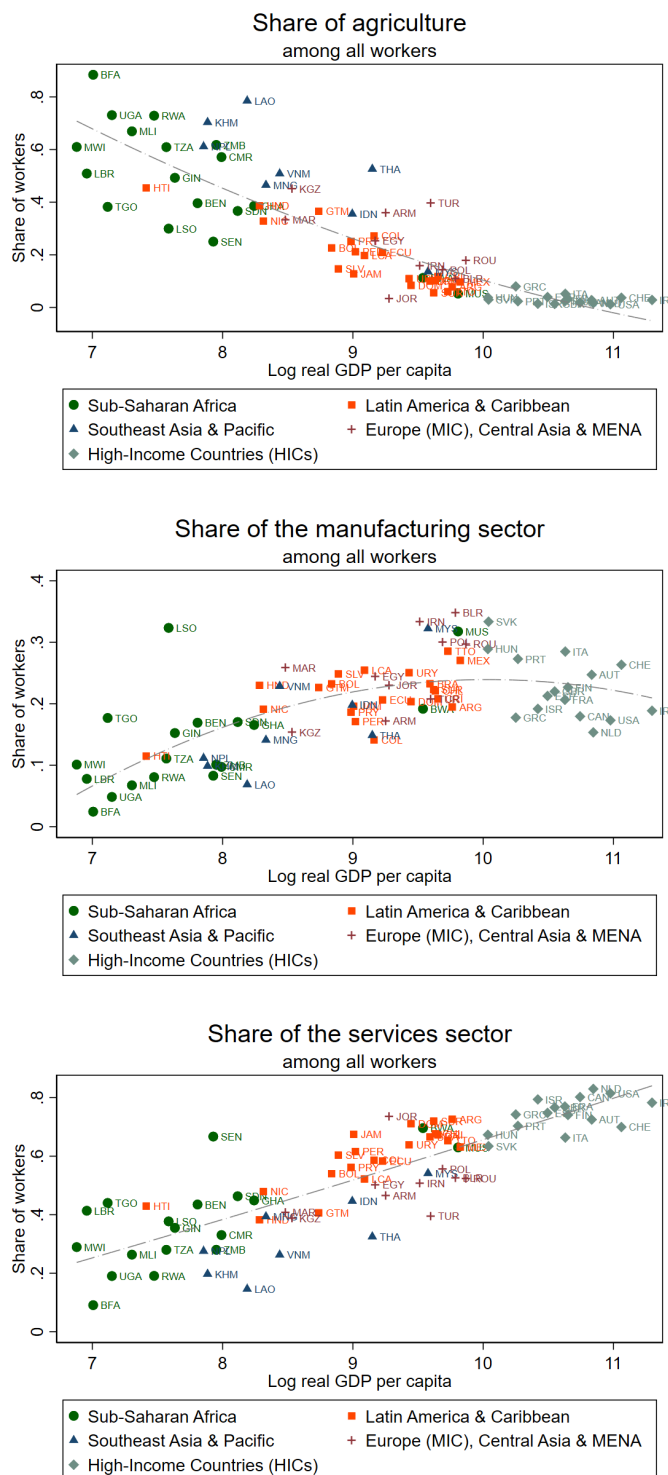
Country name	Country code	Income class	Year
Armenia	ARM	LMIC	2011
Belarus	BLR	UMIC	2009
Egypt	EGY	LMIC	2006
Iran	IRN	UMIC	2011
Jordan	JOR	LMIC	2004
Kyrgyzstan	KGZ	LIC	2009
Morocco	MAR	LMIC	2004
Poland	POL	UMIC	2002
Romania	ROU	UMIC	2011
Turkey	TUR	UMIC	2000

Table A.5: High-Income Countries (HICs) included in the sample

Country name	Country code	Income class	Year
Austria	AUT	HIC	2011
Canada	CAN	HIC	2011
Finland	FIN	HIC	2010
France	FRA	HIC	2011
Greece	GRC	HIC	2011
Hungary	HUN	HIC	2011
Ireland	IRL	HIC	2016
Israel	ISR	HIC	2008
Italy	ITA	HIC	2011
Netherlands	NLD	HIC	2011
Portugal	PRT	HIC	2011
Slovakia	SVK	HIC	2011
Slovenia	SVN	HIC	2002
Spain	ESP	HIC	2011
Switzerland	CHE	HIC	2000
United Kingdom	GBR	HIC	2001
United States	USA	HIC	2015

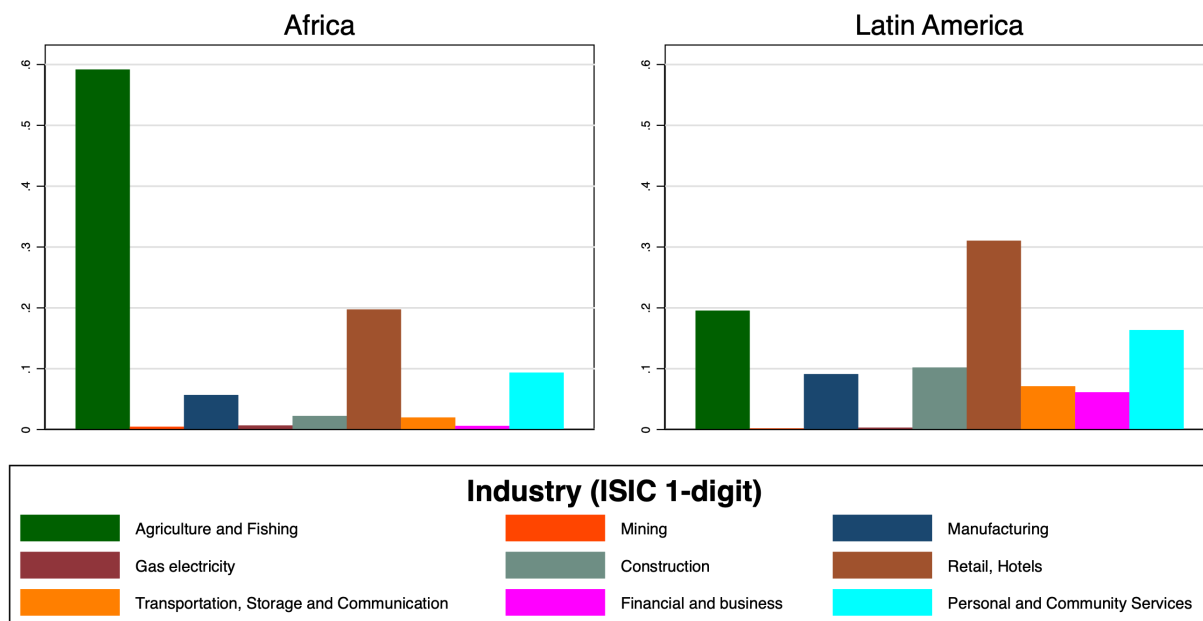
Appendix B Additional results

Figure B.1: Structural transformation



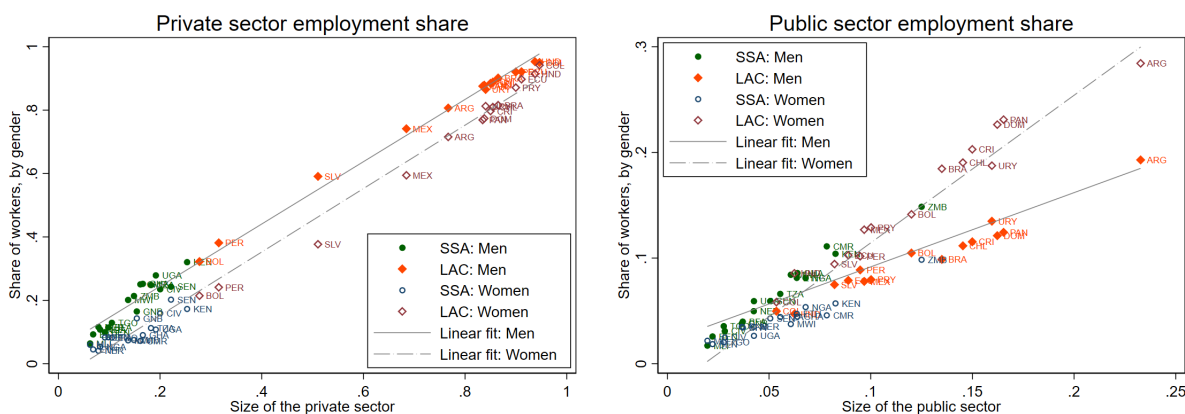
Note: The sample is working age population individuals currently in work, including self-employed and unpaid family labour. Source: Jobs of the World Data.

Figure B.2: Worker composition by industry among self-employed, Sub-Saharan Africa and Latin America& Caribbean.



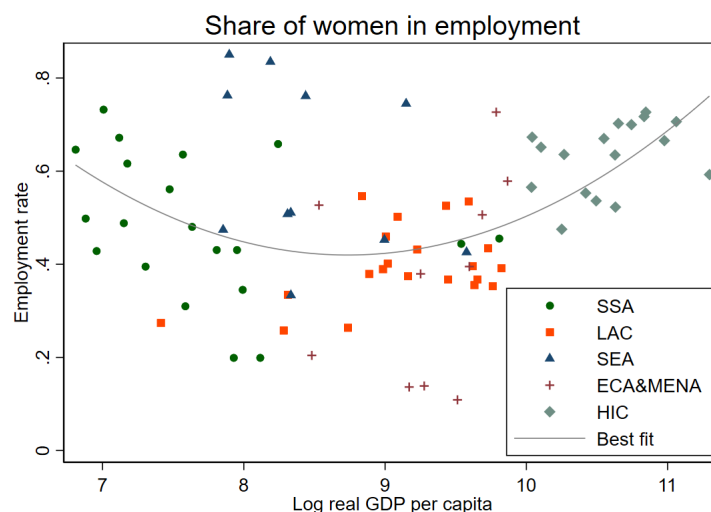
Note: Self-employed workers include unpaid family members. Source: Author's computations based on the SSA and LAC micro data.

Figure B.3: Public and private sector employment shares, by gender and sector size



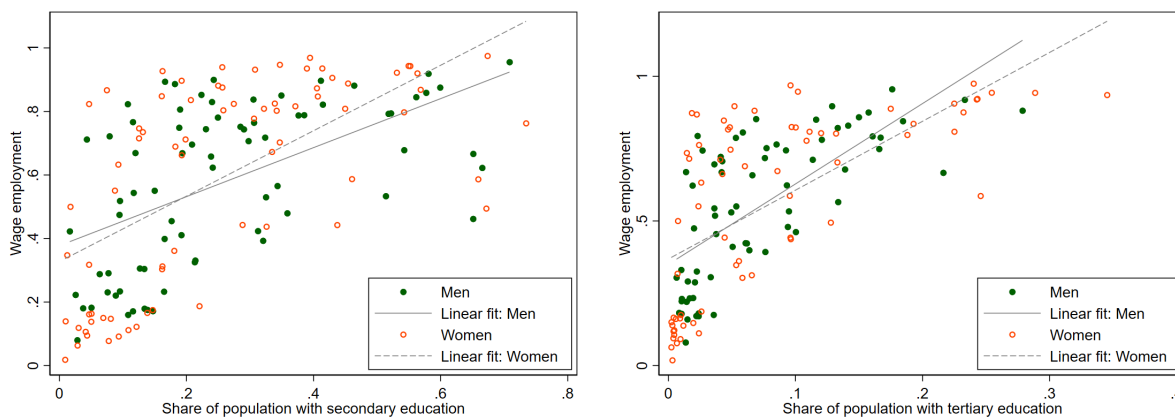
Note: The sample is working age population. The vertical axis shows private (public) employment rate for men and women separately out employed respondents (incl. self-employed). Source: Authors' calculations based on micro data for SSA and LAC.

Figure B.4: Female labour force participation and the level of development



Note: The sample is working age population. The employment rate shows the share of individuals currently in work, including self-employed workers and unpaid family members. Source: Jobs of the World Data.

Figure B.5: Wage employment and educational attainment



Note: The sample is working age population. The wage employment rate shows the share of those currently in work who are wage employees either in the public or private sector. The horizontal axis plot the share of working-age men (correspondingly, women) with secondary education in the left panel and tertiary education in the right panel. Each dot represent a country. Source: Jobs of the World Data.