

Female Labour Force Participation in sub-Saharan Africa: A Cohort Analysis

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Background

The last few decades have seen considerable progress worldwide with regard to female access to education, health, and other factors generally considered as contributing to female empowerment. These factors are inclined to improve female outcomes in the labour market, both in terms of participation and in terms of the quality of work. However, recent trends in female labour supply in the developing world fell short of some of these expectations, as the female labour force participation rate (LFPR) has been stagnating or declining. Broadly speaking, this pattern can be seen in sub-Saharan Africa (SSA), where the aggregate female LFPR has hardly changed since the 1990s, remaining stagnant at slightly above 60 per cent (ILO 2021). At first sight, this pattern is puzzling, given the substantial gains in educational enrolment and attainment combined with declining fertility rates in SSA over the same period.

The literature that examines recent patterns in female labour force participation finds substantial regional heterogeneity across the developing world, but rather weak associations between female labour supply and correlates such as female education and fertility (Klasen 2019). On a more pessimistic note, Klasen (2020) highlights general stagnation and regression in several dimensions of gender equality, among them female labour force participation. Heath and Jayachandran (2017) review the existing evidence on female labour force participation more favourably, pointing to the positive impact of increased female enrolment in education. Klasen et al. (2020) also finds evidence for a positive association between female education and female LFPR in eight developing and emerging economies.

Data and research methods

We analyse female labour force participation in SSA from a demographic perspective using repeated census data for 15 SSA countries provided by the Minnesota Population Center (2019), commonly referred to as IPUMS International. We point out that the empirical patterns of and the associations between female labour supply, education, and fertility are heterogeneous regarding both the age and the birth cohort of the women in our sample. These sources of heterogeneity tend to be disguised by empirical specifications that use broad age aggregates and/or do not study differential cohort patterns.

We use descriptive analyses, cohort graphs, and panel regressions to disentangle the associations between our variables of interest.

Results

We find that enrolment in education is substantially higher among the youngest female cohorts in our sample relative to the older ones, which depresses female labour supply among the youngest cohorts at early working age (ages 15-24). During the prime working age (ages 25-44), education and female labour supply are then positively related.

We further find that younger female cohorts give birth for the first time at a later point in their lives than older cohorts; in line with their increased school attendance. This development additionally depresses female labour supply in early working life: Female labour force participation and fertility are positively related at ages 15-24, as early motherhood is associated with lower enrolment in education. Thereafter, we do not find a significant relationship between female labour supply and fertility in prime working age. In turn, early motherhood is also strongly associated with a widening gender gap in labour supply between men and women in early working age, suggesting that early motherhood is detrimental to both female education and female labour supply.

Regarding the quality of women's work, we find a robust association between female employment in the non-primary sector and female education. In contrast to the previously described associations, this pattern is stable across age groups and cohorts, suggesting a general benefit of education, while keeping in mind that employment in the tertiary sector in many SSA economies is not necessarily associated with more skilled labour supply.

Discussion

Taken together, these results point to an important life-cycle perspective on female labour force participation in SSA: the youngest female cohorts sharply decrease their labour supply and increase their investment in education during early working life while simultaneously delaying the timing of their first births. The effects of these adjustments cannot be fully grasped yet, as they will unfold over the entire working lives of these cohorts, which we do not yet observe in the currently available data. However, the differential behaviour of these young cohorts does already and will continue to affect aggregate patterns due to the predominant demographic structure of SSA countries, where the youngest cohorts account for relatively large shares of the working-age populations: According to UN DESA (2019), 42 per cent of the SSA population was below age 15 in 2020, while the ten-year age interval 15-24 comprises 20 per cent of the population. We can presume that a large share of the adolescents in the latter age group is currently enrolled in secondary education and will enter the labour market in the next few years. Similar points regarding the demographic potential of the large and relatively well-educated young cohorts that are about to enter the labour markets of SSA economies are raised by Fox et al. (2016), albeit with a rather pessimistic view on the continuing importance of the informal sector and gendered transitions to employment due to early motherhood.

Our study contributes to the literature on female employment trends across developing countries in general and across SSA in particular. In contrast to much of the existing literature, we focus on variation across cohorts instead of across periods. Among the few exceptions, cohort-centred perspectives are also adopted by Goldin and Mitchell (2017) and Mammen and Paxson (2000), who highlight changing patterns in female employment in the United States and in South Asian countries, respectively. Still, period-centred studies provide several points of reference for our approach: Verick (2014) notes that female LFPR are not only heterogeneous across regions, but also across age groups, with the school-age group showing falling labour supply due to higher school enrolment. He further points out that in regions with comparatively high female LFPR and small gender gaps in employment, such as SSA, the quality of female employment is an important dimension, as many women have to participate in the labour market due to poverty. Yeboah and Jayne (2018) use multiple data sources to study employment trends in nine SSA countries. Their focus is rather on sectoral employment trends out of agriculture, which they find to be accelerating, without a particular emphasis on female employment. While they analyse variation within age groups across time and not across cohorts, they note that rates of economic inactivity are high in the youngest age group (15-24), which they relate to extended periods of schooling, and that young adults leave farming jobs at a high rate once they have completed their education.

In a broader context, the cohort perspective on female labour force participation we take in this study relates to the debate on the prospects of a 'demographic dividend' in SSA countries (Bloom et al. 2017;

Groth and May 2017). Changes in the age composition of a population can have an effect on economic performance when the working-age population grows faster than the overall population (Bloom and Williamson 1998; Bloom et al. 2003). Our results indicate that the female working-age population in SSA is poised to change not only in relation to the total population but also in terms of its human capital, fertility, and the resulting labour supply, with this change being driven by the differential behaviour and experience of the cohorts currently of early working age. Assessments of a ‘demographic dividend’ in SSA and the potential contribution of the female workforce might therefore be premature at this point, as substantial gains in human capital are just about to be carried over into the labour market. The time lag between the acquisition of human capital via school attendance and the human capital fully coming into effect in the labour force is also noted by Goujon et al. (2016) and Kotschy et al. (2020).

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