Across sub-Saharan African countries, enrolment in education has risen substantially for women born in the 1990s or later.

Higher enrolment rates mechanically depress the female labour force participation rate, as women who are attending secondary or post-secondary school often do not work.

There is a strong and positive correlation between female educational attainment and female labour force participation during prime working age (20–39).

We further find a cohort trend toward higher rates of women's employment outside of agriculture that is associated with increased education.

These patterns are particularly pronounced in those countries that have greatly expanded women's access to education, such as Ghana and Rwanda.

Several sub-Saharan African (SSA) countries have achieved substantial economic growth in the past 30 years. Likewise, access to education has considerably expanded, as reflected in rising enrolment rates for both men and women. Female labour force participation (FLFP) rates, however, are stagnant in sub-Saharan Africa, giving rise to concerns over whether economic progress has been conducive to women's empowerment.

A new demographic analysis of FLFP in SSA finds that lower FLFP among the most recent cohort of women is associated with longer and higher female enrolment in education, a potentially positive development when taking the entire working life cycle into account.

The study analyses FLFP rates in a heterogeneous sample of 13 SSA countries by using census extracts provided by IPUMS International. Countries for which at least two subsequent census extracts are available are included to enable observation of cohorts over the course of their early and prime working ages. This allows for analysis of data on cohorts of women born between 1970 and 1995, though the cohorts of women who were born in 1990 and 1995 are naturally not observed beyond age 30 yet.

Has progress for women stalled?

The average labour force participation rate of women in early working life (ages 15–19) decreased markedly for those cohorts of women born in more recent years. This decrease is easy to see in Figure 1A. While nearly 60% of the women born in 1970 participated in the labour force at this age, less than 30% of the women born in 1995 did so at the same age. At prime working age (ages 20–29 and 30–39), however, the differences between the observed cohorts become much smaller.

This decline might be reason for concern, as the labour force participation rate of women is often considered a good indicator of women's empowerment across countries. However, the large decrease for the cohorts of women born after 1990 in early working life is mirrored by an
increase in women's secondary school attendance. This is also
clearly visible in Figure 1B. At ages 15–19, less than 30% of the
women born in 1970 attended school, while nearly 60% of the
women born in 1995 were still enrolled in education at the
same age.

These two inverse patterns suggest that young women in
SSA countries have better access to education now and are
taking advantage of it. This increased access to education
mechanically depresses the labour force participation rate
for women in early working life. As this allows women to
enter the labour force later with a higher level of educational
attainment, it should not be considered an indicator that
women's empowerment in these countries is necessarily in
retreat.

What is the pay-off of increased educational
attainment for women?
The inverse association between school attendance and labour
force participation at early working age has implications for
women's FLFP across the working life because of its connection
to higher women's educational attainment.

Regression analysis of the data reveals that the association
between the FLFP rate and higher levels of education is weak
and insignificant until cohort fixed effects are included; then
the association turns significant and quantitatively large (Table
1).

These cohort fixed effects, which account for the fact that FLFP
in early working life is much lower for the cohorts born in
1990 and 1995 due to their higher school attendance, enable
us to see the strong and positive association between women's
educational attainment and their labour force participation
rate. A positive association further exists between education
and the share of women working in more skill-intensive
sectors of the economy.

How the FLFP of the cohorts born in 1990 and 1995 will
actually materialize, when these women reach prime working
age, remains to be seen in data that are yet to be collected.

A potential demographic dividend?
While the younger women of later cohorts have been
acquiring more education, their population size has not
substantially declined compared to earlier cohorts, an effect
described as 'population momentum'. Consequently, the
younger women who are now entering the labour force
will have a relatively strong impact on the education level
of the overall labour force.

Education is generally considered an important factor
if a country intends to reap a so-called 'demographic
dividend' — a boost to its rate of economic growth that
originates from a demographic transition towards a larger
working-age population, relative to the non-working-age
population. In this context, education is considered to
improve the economic potential of the growing working-age
population.

The relatively large increase in the educational attainment
of the female labour force may therefore contribute to
demographic dividends across many of the SSA countries
studied. At least it has the potential to, if the quality of
education is adequate and labour markets in SSA are able
to sufficiently create jobs.

### IMPLICATIONS

For research, the study demonstrates some of the
pitfalls of aggregated data. Such data may obscure
substantial cohort movements that are concentrated
within narrow age groups

With respect to women's employment rates over the life
cycle, it is further important to disaggregate by age as
major life events impacting the rate (such as attending
school, being married, and/or becoming a parent) tend
to be concentrated in certain age groups.

The analysis of these disaggregated trends becomes
possible only through the provision of multiple waves
of large and representative datasets.

Higher investments in education by the younger women
of recent cohorts can be a major factor contributing to
demographic dividends across SSA.

The COVID-19 pandemic may adversely affect both
female (and male) education and access to the labour
market, but this cannot be substantiated yet.