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**Article**

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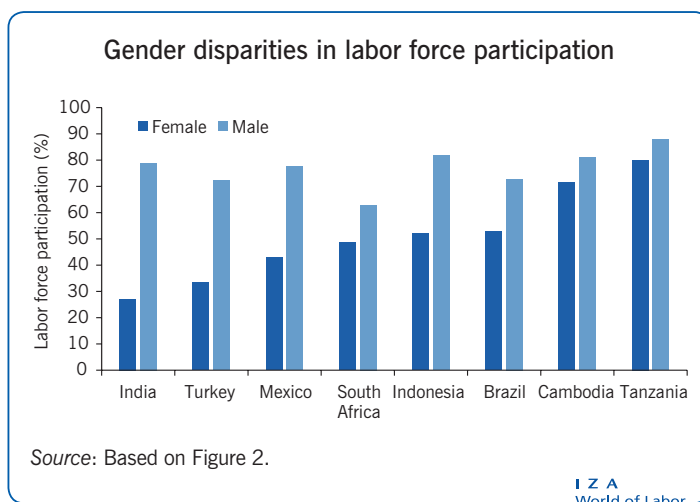
# Female labor force participation and development

## Improving outcomes for women takes more than raising labor force participation—good jobs are important too

Keywords: female labor force participation, developing countries, employment

### ELEVATOR PITCH

The relationship between female labor force participation and economic development is far more complex than often portrayed in both the academic literature and policy debates. Due to various economic and social factors, such as the pattern of growth, education attainment, and social norms, trends in female labor force participation do not conform consistently with the notion of a U-shaped relationship with GDP. Beyond participation rates, policymakers need to focus on improving women’s access to quality employment.



### KEY FINDINGS

#### Pros

- + Female labor force participation is an important driver (and outcome) of growth and development.
- + Women participate in the labor force in developing countries because of poverty and as a coping mechanism in response to shocks.
- + The participation of women is the outcome of various economic and social factors.
- + Access to quality education (beyond secondary) is critical to improve employment outcomes for women.

#### Cons

- Even when gender disparities in participation rates are low, women tend to earn less than men and are more likely to be engaged in unprotected jobs, such as domestic work.
- Education raises the reservation wage and expectations of women, but it needs to be matched by job creation.
- Underreporting is common, so data on women’s participation rates do not accurately reflect women’s work.

### AUTHOR’S MAIN MESSAGE

The relationship between women’s participation in the labor force and development is complex and reflects changes in the pattern of economic growth, educational attainment, fertility rates, social norms, and other factors. However, labor force participation rates paint only a partial picture of women’s work. More important is understanding the quality of women’s employment. To achieve gains in job quality, policies should focus on both labor demand and supply dimensions. Expanding access to secondary and higher education is particularly relevant but this needs to be matched by the creation of jobs that can be accessed by women.

## MOTIVATION

Women's participation in the labor market varies greatly across countries, reflecting differences in economic growth, social norms, education levels, fertility rates, and access to childcare and other supportive services. The relationship between female labor force participation and these factors is complex. One dimension that has been widely examined is the U-shaped relationship between economic development and women's labor force participation [1].

### What is the U-shaped hypothesis?

The U-shaped hypothesis is a stylized description of the relationship between the female labor force participation rate with economic development, which is typically measured in terms of GDP per capita. In its basic form, the hypothesis posits that female participation rates are highest in poor countries, where women are engaged in subsistence activities, and fall in middle-income countries because of the transition of (mainly) men to industrial jobs. As education levels improve and fertility rates fall, women are able to join the labor force in response to growing demand in the services sector. This is a stylized fact, but it is not robust to different data sets and econometric methodologies. While some countries follow this path, many labor markets do not exhibit this U-shaped relationship.

Focusing on these issues is critical because female labor force participation is a key to promoting inclusive growth and achieving the Sustainable Development Goals (SDGs), particularly SDG 5 (“Achieve gender equality and empower all women and girls”). However, beyond the absolute numbers is the far more important concern with the nature of jobs that women are able to engage in.

### Defining the labor force participation rate and work

The labor force participation rate is a measure of the proportion of a country's working-age population that engages actively in the labor market, either by working or by looking for work. As the sum of the employed and (searching) unemployed, this indicator signals the relative size of the supply of labor available to engage in the production of goods and services. People are counted as a part of the labor force if they are engaged in activities that are included in the System of National Accounts or are available and searching for work in such activities. People are classified as not being in the labor force if they are attending an educational institution, engaged in household duties, retired, or infirm or disabled (and other reasons).

*Source:* ILOSTAT, [http://www.ilo.org/ilostat-files/Documents/description\\_LFPR\\_EN.pdf](http://www.ilo.org/ilostat-files/Documents/description_LFPR_EN.pdf)

In 2013, the 19th International Conference of Labour Statisticians (ICLS) adopted a broader definition of work, which encompasses “employment work” but also includes own-use production work comprising production of goods and services for own final use, unpaid trainee work, volunteer work, and other forms of work. Countries have been gradually aligning their labor force surveys with the Resolution of the 19th ICLS, which will impact measurement of the labor force and other indicators.

*Source:* ILO, <https://www.ilo.org/global/statistics-and-databases/meetings-and-events/international-conference-of-labour-statisticians/19/lang--en/index.htm>

This article highlights the complex nature of female labor force participation in developing countries and presents findings on the key trends and factors that drive women's engagement in the labor market and access to employment. It examines specific insights from different developing countries, including Bangladesh, Brazil, India, Indonesia, and Turkey. Above all, the article stresses the importance of looking at the quality of employment and means to promote better outcomes for women in the labor market.

## DISCUSSION OF PROS AND CONS

Development, as witnessed during the Industrial Revolution and more recently in East and (parts of) Southeast Asia, has involved two related transitions: the movement of workers from agriculture to manufacturing (and more recently services) and the migration of people from rural to urban areas. These transitions were associated with rising levels of education, declining fertility rates, and shifts in other socio-economic drivers of labor force participation, with specific gender implications for the labor market.

In this context, female labor supply is both a driver and an outcome of development. As more women enter the labor force, economies have the potential to grow faster in response to higher labor inputs. Women's supply of labor increases household incomes, which helps families escape poverty and increase their consumption of goods and services. At the same time, as countries develop, women's capabilities typically improve, while social constraints weaken, enabling women to engage in work outside the home.

However, labor force participation is the outcome of not only supply-side factors, but also of the demand for labor. In particular, the nature and spatial distribution of economic growth and job creation help determine whether women can access jobs, particularly in a context where social norms dictate how and where women can work. As seen in developing countries that have experienced rising female labor force participation, labor-intensive manufacturing has provided an important conduit for women to work outside the home, albeit often in difficult working conditions [2].

The relationship between evolving socio-economic and demographic factors and how women participate in the world of work is multifaceted. In particular, whether a woman is working may be driven, on the one hand, by poverty (as evident in low-income countries) and, on the other, by women's increasing educational attainment and the opportunities to work that are made available in a more modern economy. Moreover, during periods of crisis and in response to economic shocks, women are often required to take up (typically informal) employment to smooth household consumption. This occurred in Indonesia in the wake of the East Asian financial crisis of 1997–1998 [3].

Beyond analyzing labor force participation, it is critical to look at the nature of women's employment. In general, when women work, they tend to be paid less and to be employed in low-productivity jobs.

### Country trends in female labor participation are diverse

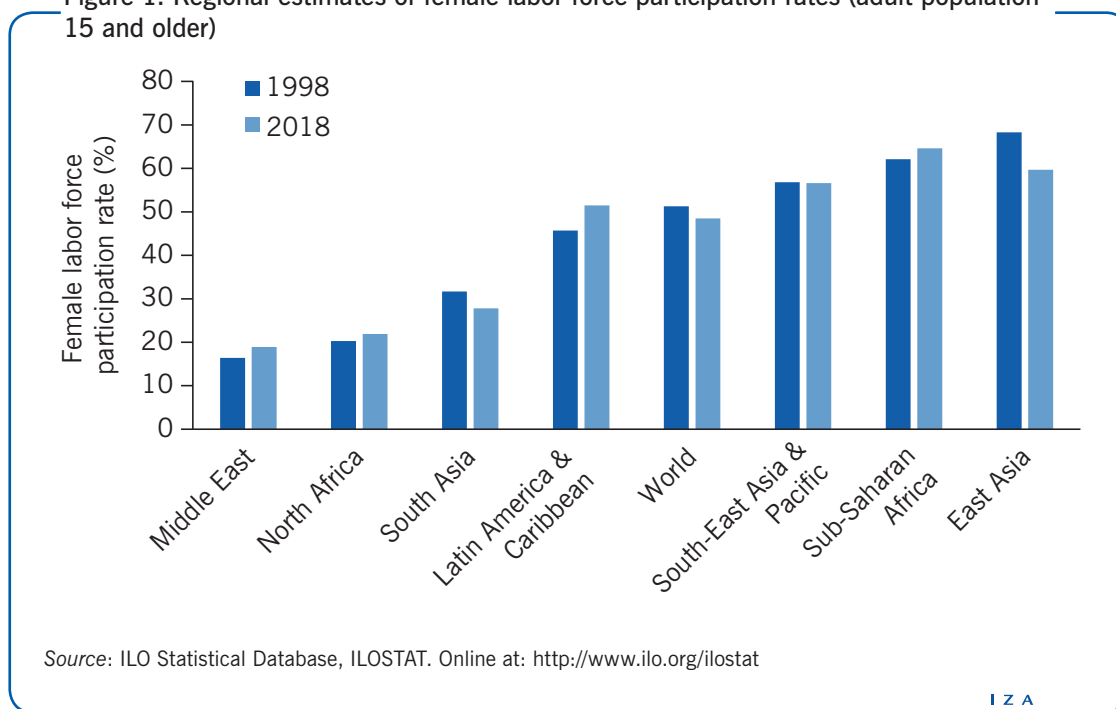
Over the last two decades, the global female labor force participation rate (age group 15+) has declined, despite strong growth in emerging and developing countries, from

51.3% in 1998 to 48.5% in 2018 (ILO modelled estimates, <http://www.ilo.org/ilostat>). Though more than 307 million women have joined the labor market in the past 20 years, women still account for just 39.2% of the global labor force. As education enrollment rates have risen across the world, labor force participation rates have fallen among school-age youth (a positive trend for both young men and women). Thus, despite falling female labor force participation rates, the gender gap has narrowed slightly, from 27.5 percentage points in 1998 to 26.6 percentage points in 2018 (ILO modelled estimates, age group 15+).

Projections suggest that female labor force participation rates will continue to fall over the coming decade or so, reaching a low of 45.9% in 2030. This is a stark reminder that unless trends are reversed through policy measures, countries will struggle to improve outcomes for women in the labor market.

At a more disaggregated level, the participation of women varies considerably across developing countries and emerging market economies, far more than the participation of men. In the Middle East, North Africa, and South Asia, less than 30% of women aged 15 and older participate in the labor force (Figure 1). However, participation rates have increased in the Middle East and North Africa from 1998 to 2018, while rates have fallen in South Asia. In all three regions, conservative social attitudes continue to constrain options for women to work outside the home [4].

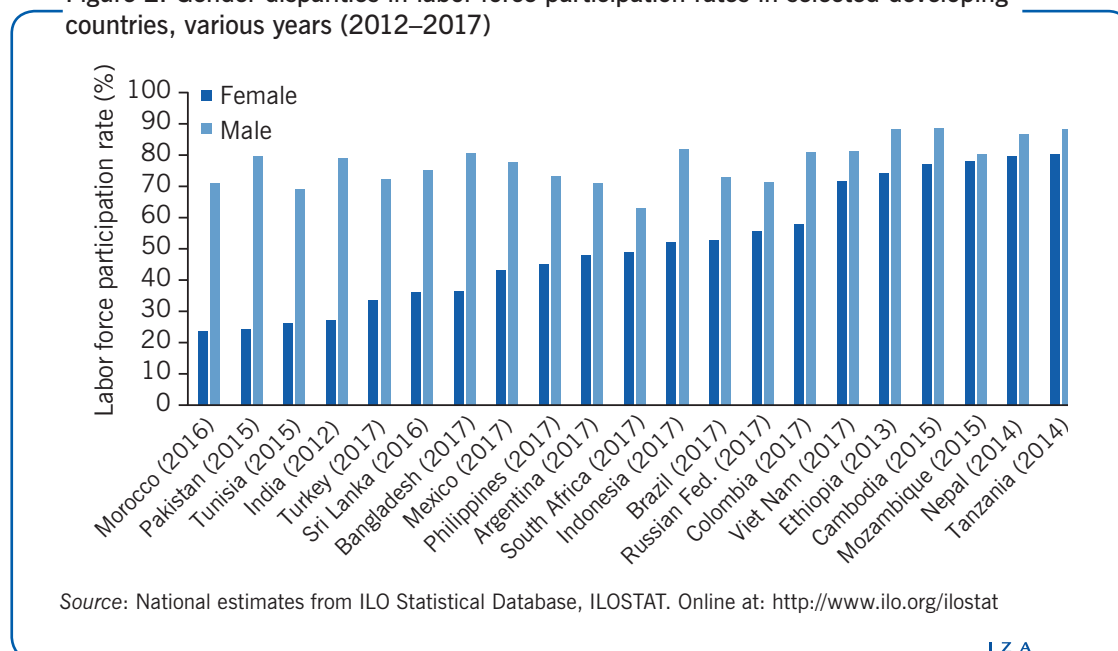
Figure 1. Regional estimates of female labor force participation rates (adult population 15 and older)



But even within regions where overall female labor force participation rates are low, there is considerable diversity (Figure 2). In South Asia, female participation rates range from under 30% in Pakistan and India to almost 80% in Nepal. Bangladesh is one of the few countries in South Asia that has experienced a rapid increase in women’s participation in employment from a low initial condition, which has been attributed to the growth in

the readymade garment industry and a rise in livestock rearing (linked to access to micro-credit) [5]. Despite a historically high level of human development and robust economic growth in recent years, female labor force participation rates in Sri Lanka have remained fairly stable, averaging around 33% over 2003–2012 [6].

Figure 2. Gender disparities in labor force participation rates in selected developing countries, various years (2012–2017)



Trends in female labor force participation rates in India have been particularly puzzling. Female participation rates fell from 34.1% in 1999–2000 to 27.2% in 2011–2012. Research has posited several reasons behind this decline, including the increased school enrollment of girls and young women and lack of job opportunities for women, to the income effect and mismeasurement of female labor force participation [7], [8].

Though the trend in India is considered puzzling, it is not an isolated example. Turkey has experienced declines from a low initial condition as well, with female participation rates dropping from 36.1% in 1989 to 23.3% in 2005. This downward trend has been explained by rising urbanization and structural transformation: as households moved from rural to urban areas, husbands shifted out of agriculture, resulting in a withdrawal of women from the labor force (reflecting women’s increased engagement in domestic duties) [9]. Since 2005, however, a period of better macroeconomic conditions, Turkish women have rejoined the labor force. Consequently, participation rates increased to 33.5% in 2017.

Latin America and the Caribbean has experienced stronger growth in female labor force participation rates than other regions, reaching 51.5% in 2018, higher than the global average (Figure 1). In this region, the female labor force participation rates in Brazil rose from 54.1% in 2001 to 57.9% in 2009, while rates in Chile rose from 33.9% in 1996 to 47.8% in 2012. In Brazil, the increase in women’s participation was driven by both pull and push factors, partly reflecting trade liberalization and the accompanying sectoral transitions [10].

In contrast to South Asia, in East and Southeast Asia women's participation in the labor market has historically been higher. As countries in these regions developed rapidly in the 20th century, workers, including women, transitioned from agriculture to manufacturing. Overall, improvements in educational attainment and expansion in export-oriented manufacturing pushed women into newly created jobs in these economies [4]. Indonesia, with a lower rate of female labor force participation than other South-East Asian countries, is often cited as an example of the added-worker effect. In the wake of the East Asian financial crisis of 1997–1998, a large number of male workers lost their jobs in the formal sector. To smooth household consumption, women increased their labor supply, though mostly through jobs in the informal sector and agriculture. Consequently, the female labor force participation rate in Indonesia rose from 49.9% in 1997 to 51.2% in 1999 [3].

### **Empirical evidence: Factors and determinants**

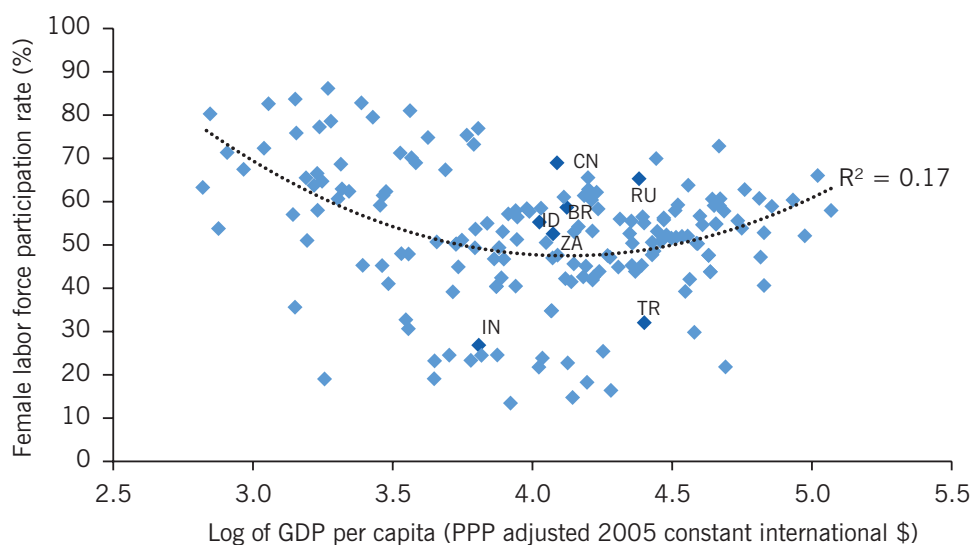
Given the complex nature of female labor force participation in developing countries, it is important to analyze how socio-economic factors affect the decision and ability of women to engage in the labor market. The key, often overlapping, dimensions considered in the literature include [4], [11]: level of economic development and the nature of growth; educational attainment; household income; social dimensions, such as social norms influencing marriage, fertility, and women's role in and outside of the household; and institutional setting (laws, protection, benefits).

### ***Is the U-shaped relationship between development and female labor force participation more than a stylized fact?***

A much-discussed hypothesis in the literature, explored in a large number of studies, proposes that there is a U-shaped relationship between economic development and women's participation in the labor force [1]. The stylized argument is that when a country is poor, women work out of necessity, mainly in subsistence agriculture or home-based production. As a country develops, economic activity shifts from agriculture to industry, which benefits men more than woman. At higher stages of economic development, education levels rise, fertility rates fall, and social stigmas weaken, enabling women to take advantage of new jobs emerging in the service sector that are more family-friendly and accessible. At a household level, these structural shifts can be described in the context of the neoclassical labor supply model: as a spouse's wage rises, there is a negative income effect on the supply of women's labor. Once wages for women start to increase, however, the substitution effect will induce them to increase their labor supply.

Data for a large set of 172 countries for 2018 show (weak) evidence of a U-shaped relationship between the log of GDP per capita (adjusted to serve as a proxy for economic development) and the female labor force participation rate (Figure 3). Some outliers, including India and Turkey (discussed above), have far lower participation rates than most countries at the same income level. In contrast, other countries, such as Brazil, China, and the Russian Federation, have higher female labor force participation rates than the average for their level of economic development.

Figure 3. Incidence of a U-shaped relationship—a decline and then a rise in female labor force participation as economies develop (2018)



Note: Data for 172 countries; polynomial trend line is not the best fit due to outliers. PPP = purchasing power parity.

Source: ILO model estimates, ILOSTAT. Online at: <https://www.ilo.org/ilostat>; World Development Indicators. Online at: <http://databank.worldbank.org/data/source/world-development-indicators>

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Drawing on the apparent U-shaped relationship evident in Figure 3, many commentators have concluded that female labor force participation rates will increase as an economy develops, regardless of country-specific initial conditions and trends. A number of studies have tested the validity of this hypothesis and robustness to different data sets and methodologies. One study finds that the U-shaped relationship is not robust once advanced estimation techniques (dynamic generalized method of moments (GMM) panel data techniques) are employed [4]. Moreover, earlier findings were sensitive to the use of more up-to-date and accurate labor force data.

Clearly, not all countries have followed such a U-shaped path as their economies have grown. For example, the female labor force participation rate rose from 23.9% in 1990 to 36.0% in 2010 in Bangladesh, a low-income country, while it stagnated or declined in India (especially in rural areas). Participation rates for women in Bangladesh started at much lower levels before increasing over the 2000s due to the boom in the garment industry and micro-credit, which support agricultural livelihoods [5]. Thus, ascribing the complex evolution of female labor force participation in developing countries purely to changes in per capita GDP oversimplifies the reality of multiple forces at play and falsely suggests that there is a “natural law” dictating this process.

### ***Does education increase the likelihood of a woman’s participation in the labor force?***

One of the key determinants of labor market outcomes in both developed and developing countries is educational attainment [3]. Education levels of girls and young women have improved considerably in many developing countries in recent decades and should have



helped increase opportunities for women to enter the labor market. In many developing countries, there is a linear relationship between education and female labor force participation (e.g. South Africa), while in a few economies there is evidence of a non-linear or U-shaped correlation (e.g. India) [12]. In poorer countries, such as India, the most uneducated women are the most likely to participate in subsistence activities and informal employment, while women with a high school education tend to be able to afford to stay out of the labor force. Once women have more than a secondary school education, higher wages pull them to join the labor force, particularly if appropriate jobs are available.

### **Participation is only part of the picture: The quality of employment also matters**

Studies on female labor participation tend to primarily focus on the binary nature of this labor market indicator. However, in developing countries, it is crucial to understand not only whether women are working or actively seeking work, but also the nature of the work women are able to access.

Overall, the quality of employment and opportunities for better jobs continue to be unequally distributed between men and women, even in countries where there is close to parity in the labor force participation rate. In most developing countries, when women work, they tend to earn less (the well-known gender wage gap), to work in less productive jobs, and to be overrepresented in unpaid family work and other forms of vulnerable work. Employment segregation by gender is prevalent across the world [11].

In terms of employment status, more women than men work as contributing family workers, which adds to their labor market vulnerability. The ILO estimates that contributing family work accounts for 42.3% of female employment in developing countries, compared to 20.2% of male employment (2018 figures) [13]. In many developing countries, a high proportion of working women are active in the agricultural sector, though the shares in this sector have fallen in recent years as more women have taken up work in the services sector (and in the manufacturing sector in a few countries, such as Bangladesh).

As well documented in the literature, women typically earn less than men, even after controlling for differences in observable worker and job characteristics. Based on a large sample of countries, a review paper finds that the earnings gap between men and women with similar characteristics ranges from 8% to 48% [14]. The study also notes that there is not a robust relationship between economic development and declining wage disparities.

As is the case for labor force participation, education plays a critical role in determining the nature of employment taken up by women. Education raises the reservation wage (that is the lowest wage at which a person would accept a particular job) and changes the preferences of jobseekers. One study of women in Indonesia estimates that, compared with having a junior secondary education, having a college education increases the probability of working in a regular job by 25.6% and having a senior secondary education increases it by 10.3% (based on an analysis of 2009 labor force survey data). Women with at most a primary school education were less likely to be regularly employed [3].

Women's education needs to expand beyond middle school (junior secondary) for their participation in the labor force to increase, especially if they are to work in better

quality jobs. At higher levels of education, potential earnings act as a pull factor, helping overcome economic and social constraints.

## LIMITATIONS AND GAPS

The literature has (and, increasingly, policymakers have) long recognized that women's participation in the labor force is poorly measured and underestimated [15]. Though data collection has improved, this remains a major obstacle to the analysis of official statistics collected through labor force and other household surveys. Another limitation arises from survey enumeration. Because of poor training of enumerators, labor force surveys underestimate the participation of women, especially when they are working at home or on the farm. Enumerators can inadequately probe for the economic activities of female members in the household, a problem that is compounded by the fact that men are typically the survey respondents in countries where female labor force participation rates are low.

Time-use surveys have been proposed as a means of gathering more accurate and insightful data on the nature of women's work in and out of the household, especially in subsistence production and informal employment [15]. The challenge, however, is that time-use surveys are costly and difficult to implement regularly.

The 19th International Conference of Labour Statisticians (ICLS) Resolution on Work provides broader guidelines on measuring work, which subsumes a narrower definition of employment. While this poses challenges for countries as they align their data collection and analysis, the 19th ICLS Resolution also provides an opportunity to capture different forms of work.

## SUMMARY AND POLICY ADVICE

The changing nature of women's participation in the labor force has been a critical dimension of the development process since the Industrial Revolution and increasing numbers of women in the labor market have played an important role in driving the demographic dividend and pushing economic growth. However, the relationship between female labor force participation and economic progress is far from straightforward. Though cross-sectional data do indicate that there is a (weak) U-shaped relationship between female labor force participation and GDP per capita, this relationship is not robust and it is not a consistent trend at the country level. Ultimately, women's employment is driven by a range of multifaceted factors, including education, social norms, and the nature of economic growth and job creation.

Beyond standard labor force participation rates, policymakers should be concerned with whether women can access better jobs and take advantage of new labor market opportunities that arise as a country grows and, in so doing, can contribute to the development process itself. For this reason, policies should consider both supply- and demand-side dimensions, including better quality education and training programs and access to childcare, as well as other supportive institutions and legal measures to ease the burden of domestic duties, enhance women's safety, and encourage private sector development in industries and regions that can increase job opportunities for women in developing countries.

Particular emphasis is needed on keeping young girls in school and ensuring that they receive a good quality education, beyond secondary level, and are able to take advantage of training opportunities. That, in turn, will increase their chances of overcoming other barriers to finding decent employment.

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### **Competing interests**

The IZA World of Labor project is committed to the *IZA Guiding Principles of Research Integrity*. The author declares to have observed these principles.

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