Promoting Female Labor Force Participation

Svetlana Pimkina and Luciana de la Flor
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EXECUTIVE SUMMARY

Women comprise half of the world’s adults, and therefore potentially half of its labor force. Their participation in the labor force is essential to achieving gender equality, sustainable economic growth, and household welfare. Yet, in nearly every country, women’s labor force participation is significantly lower than men’s (International Labour Organization, 2019). While the available literature generally focuses on female employment (women who are employed), this paper centers on female labor force participation (FLFP, women who are either employed or looking for employment). The distinction is key, in that women’s decision of whether to work is distinct from the equilibrium outcome of whether they successfully find employment. The former represents the potential supply of women’s labor able to meet firm labor demand for production, and thus contribute to GDP.

This paper explores the specific constraints women face to entering and remaining in the labor force, and how they can be effectively addressed by policymakers. We classify these barriers around the key drivers of female labor force participation. First, we examine how constraints in endowments such as time, education, financial and social capital limit women’s participation in the labor force. Women’s time is split between paid labor, leisure, and domestic production (unpaid labor) including housework, childcare, and elderly care responsibilities. These multiple claims on women’s time, prevent many women from participating in the labor force. Notably, women with children may require or value more flexible work schedules, which is more likely to be found in the informal economy. In order to alleviate the constraint created by women’s unpaid domestic work, a wide range of approaches is recommended, from legal access to family planning services, to access to care and support for informal caregivers.

In addition, women do not always have the relevant skills and work experience for all jobs, and, even when they do, they may lack a way to signal their qualifications to potential employers. Job training programs are common policy intervention to address these constraints, but the empirical success of these programs is mixed and heavily context-dependent. Successful experiences are often driven by training in soft skills, such as self-esteem and communication. Another way that women can signal their value to potential employers is through referrals. Yet, the literature indicates that women are less likely to be referred through their network. Finally, women often lack access to finance, including bank accounts and savings products. Financial inclusion and access to savings and credit products can improve women’s incentives to work, and therefore their labor force participation, by giving women power to make consumption and savings decisions over any potential earnings.

Second, after summing up constraints in endowments, we review evidence on the role of preferences, aspirations, norms and beliefs of the labor market on FLFP as internal factors. Perception of the labor market and of the work environment as well as beliefs about the self in relation to the labor market may influence women’s decision to participate. Research suggests that women are more likely to underestimate their skills and are less confident in their ability to obtain a job, which constraints their participation in the labor market. Boosting women generalized self-efficacy, or the belief in own ability to attain desired outcomes, increases the likelihood of women enrolling in a program that offers work opportunities, as well as probability of having employment.

In addition, social norms dictating what is and is not expected of women in society can also create significant barriers to women’s participation in the labor market, starting with the development of
their aspirations as girls. The high prevalence of violence and harassment of women is also intertwined with these social norms and can create impediments to women’s labor force participation through mobility constraints. If a woman is unable to safely commute to work, due to gender norms or safety concerns, she is theoretically less likely to participate in the labor force. Examining potential connections between safe transit and women’s labor force participation and employment is a growing area of research and policy intervention.

Third, we discuss how external constraints such as income shocks and demand-side factors inhibit active engagement in the labor market. Low demand for female labor force participation is a direct constraint. The empirical literature studying changes in demand for female labor through trade liberalization and growth in specific sectors find that increases in demand for female labor are associated with increase in female labor force participation. Similarly, targeted government programs that guarantee jobs for women (e.g. in the form of quotas) are sought to increase FLFP. However, the question of whether such quotas are desirable from a more general economic perspective, such as in terms of productivity impacts, remains unanswered. One clear point emerging from the literature, though, is the major potential barrier represented by discriminatory hiring practices. While the evidence for this in developing countries is thin, studies have documented bias in hiring practices in other contexts, suggesting the benefits of gender-blind hiring practices. Government interventions from the demand-side focus on establishing equal employment opportunity between men and women. But the direction of the impact will depend on the details of the policies, as they may end up disincentivizing female hiring.

By exploring the constraints that inhibit female labor force participation, we can find evidence-based, actionable policies to promote economic opportunities and shared prosperity for all. As this paper discusses, there are several recommended pathways to boosting women’s labor force participation, such as providing affordable, accessible, and high-quality childcare services that does not create additional costs for employers. Yet, most of the policies and programs under consideration have shown mixed results or require additional research. Specifically, though there is more research on women’s employment, the overall literature on female labor force participation is thin. By continuing to invest in this research agenda, we can better understand women’s decision of whether to work and enable them to make a choice that benefits themselves, their households, and their economies.
INTRODUCTION

Women comprise half of the world’s adults, and therefore potentially half of its labor force. Their participation in the labor force is essential. Removing barriers that restrict women from entering the labor market is a crucial part of the Sustainable Development Agenda, which seeks that all human beings develop their full potential (UN SDG). This by itself is enough of a reason to mobilize resources towards achieving equality. However, increasing female labor force participation also matters from an economic perspective. Numerous researches point out to the positive impacts in economic growth as a result of addressing gender inequality (Klase, 1999; Klasen and Lamana, 2009; Steinber and Nakne, 2012; Kabeer and Natali, 2013; Gonzales et al, 2015). Unfortunately, women are 27 percentage points less likely to participate in the labor market than men (International Labour Organization 2016). This low participation rate holds across all regions (see Figure 1).

Figure 1: Labor force participation by gender and region (%), 2019

![Labor force participation by gender and region](image)

Source: World Development Indicators. Note: Labor Force Participation (LFP) is ratio of active individuals to working age population (15+) using modeled ILO estimates.

Middle East and Northern Africa as well as South Asia have the lowest rates at around 20-23%. Sub-Saharan Africa and East Asia and the Pacific have much higher rates, of between 59-61%. However, none of them approach the 74% world average of MLFP. Additionally, male’s rates of participation do not exhibit regional differences as extreme as the rates in women, the variance in male labor force participation across regions is not as high as for women.

Moreover, trends not only differ by region, they also vary substantially across time within each region (see Figure 2). In the Arab States and Northern Africa, FLFP across time is persistently very low; and in Eastern Asia and Southern Asia it has decreased noticeably since the early 2000s. Meanwhile, over the same period, FLFP experienced robust growth in Latin America and the Caribbean, and in Sub-Saharan Africa. The former region is particularly striking as it has experienced greater growth in FLFP than the rest of the developing world.
Figure 2: Trends in female vs male labor force participation across regions (%), 1990-2019

Source: World Development Indicators. Note: Labor Force Participation (LFP) is ratio of active individuals to working age population (15+) using modeled ILO estimates.

Given such heterogeneity in female labor force participation across time and region, we seek to explore in detail the existing empirical literature to identify important barriers that inhibit women from entering the labor force. As the contexts in these regions differ greatly, we will consider a broad array of literature – beyond the usual market constraints.

Furthermore, given the differences in trends in FLFP we will explore literature that covers policy interventions, as well as changes in the identified barriers, to delineate successful policy interventions. Throughout the review we seek to identify important gaps in the existence of these barriers, on the policy that impacts FLFP, and in the research and evaluation of such policies.

We choose the main focus for this review to be on female labor force participation instead of employment, as a distinct and important measure for policy. While labor force participation and employment are fundamentally linked, they do measure different aspects of women’s performance in the labor market. Conceptually, female labor force participation is concerned with women’s decision of whether to work, while female employment is concerned with whether women are working. The female labor force participation rate is traditionally defined as the proportion of women engaged actively in the labor market—currently employed or unemployed but actively seeking to work—out of a country’s population of women in working-age (15 years and older) (ILO 2016). The female employment rate, on the other hand, is the proportion of those women who are actively participating in the labor force: either who are employed or engaged in work.¹ Thus, labor force participation captures the decision to actively engage with the labor market while employment represents an equilibrium outcome, resulting from the interaction of supply side (job seekers) and demand side (employers) of the market for female labor.

The distinction we make between women’s labor force participation and employment is lacking or is underemphasized in previous reviews, but it is not trivial. Female labor force participation does not

¹ In this context, employment comprises both paid and unpaid work and both formal and informal work.
always move in tandem with employment, and it is possible for women’s employment to be high even when their labor force participation remains low. Indeed, the global rate of female employment—measured as percentage of the labor force—has remained relatively high at around 94%. In contrast, the global rate of female labor force participation has stood at around 50%.

Employment rates, while useful, miss a large part of the story. Figure 3 illustrates this point, namely, while employment rates are similarly high between men and women (blue line), a much greater share of working age women are not in the labor force (green line). They also miss that the low rate of FLFP has been stagnant over time and slowly declining, even as employment rates remain high.

**Figure 3: Labor force participation and employment, global average**

![Graph showing labor force participation and employment](image)

Source: World Development Indicators. Notes: Indicators are aggregate at the global level. Employment to Population Ratio is defined as ratio of employed individuals to working age population (15+). Labor Force Participation (LFP) is ratio of active individuals to working age population (15+). Employment to Labor Force Ratio is ratio of employed individuals to active labor force participants.

Empirical literature studying female labor force participation in developing countries is actually thin and fragmented. Thus, we are obliged to include studies on female employment and self-employment as well. Throughout the review we systematically denote whether the studies discussed are concerned with either female labor force participation or female employment.

Moreover, much of the empirical literature on determinants and policy impacts is indirect. Only some of the interventions discussed in this review were specifically implemented to directly improve female labor supply (i.e. childcare policies). In most cases, evidence of policies on labor force participation rates comes from unforeseen or unintended side-effects of policies that had different primary aims, such as conditional cash transfers, rural electrification, or macro-level trade liberalization policies.

The following review is organized around key drivers of and barriers to female labor force participation. We explore them in detail in the following sections. First, we examine how constraints in endowments such as time, education, financial and social capital limit women’s participation in the labor force. Second we review evidence on the role of choices, preferences, norms and beliefs of the labor market on FLFP as internal factors. Third, we discuss how external constraints such as income shocks and demand-side factors inhibit active engagement in the labor market. Finally, we

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2 There has been a gradual decline in FLFP after the global financial crisis in 2009. Worldwide rates average at 48% since then.
conclude with some lesson learned form policy recommendations and draw up an agenda for future research.

While additional studies and interventions focused on female labor force participation are an important part of understanding and expanding women’s economic opportunities, increasing FLFP is not a panacea on its own. Higher rates of FLFP do not necessarily imply improved empowerment for women, because the measure does not consider the quality of the work. Labor that is unpaid, informal, and low-return are all counted equally alongside high-paying, high-quality jobs. Thus, in addition to increasing FLFP, policies that increase the availability of high-quality work for women are also necessary to close the gender gaps in the economic arenas. This paper’s recommendations on increasing FLFP should be considered in tandem with knowledge of the drivers of quality employment, self-employment, and female entrepreneurship, as the one discussed by Mckenzie et al (2019) in Kenya or by De Mel et al (2014) in Sri Lanka.

**DRIVERS OF FEMALE LABOR FORCE PARTICIPATION**

Over the past century, women joined the labor market in increasing numbers. However, in the past 30 years we have seen a desaceleration in this trend and even a setback, as FLFP rates have been slowly decreasing (see Figure 3). In developed countries such as the US, labor force participation of women aged 16 and older doubled from 33.9% in 1950 to 64.6% in 1987. This rate then remained stable and started slightly decreasing, reaching 59% by the end of 2019 (U.S. Bureau of Labor Statistics, 2020). In developing countries, as Klasen (2019) states, the trends are quite heterogeneous. Since 1990, FLFP rates have decreased in South Asia, remained stagnant in East and South East Asia, and have slightly increased in Latin America and the Caribbean. Overall, the big picture of FLFP does not look promising. Estimates from Sivard (1985) place world rates of labor participation among women in 1960 at 47% – with developing counties rates at 45% and developed economies at 52%. Today, 60 years later, ILO estimates point to a 47% worldwide FLDP rate – 46% for low and middle income countries and 53% for high income countries. There has been almost no progress.

This section explores the key driver of FLFP and why there has been almost no progress in the past 50 years. A strand of the literature points to the combined effect of economic growth, technological advances, rising education and declining fertility among women as the main drivers of FLFP for periods of positive in the developing world. We will discuss these market conditions in the context of how they impacted women’s enwomens and initial conditions to enter the labor force. Particularly, how these positively affect women’s availability of time, level of education and type of skills, level of financial inclusion, and access to networks.

On the side of fertility decline, literature in developing shows that it has freed up women’s time spent with being pregnant or caring for a small child substantially, enabling greater labor force participation. The invention of contraceptive methods has foster this fertility decline and has reduced the opportunity cost of engaging in long-term career investments (Goldin and Katz, 2002). The diffusion of technology that allowed household chores to be less time consuming has reduced the time burden of household chores (Fernandez, 2007). Similarly, the expansion of female education and consequent closing of gender gaps in education in developing countries indirectly
enables labor market participation by facilitating a fertility decline and promoting female labor market opportunities directly. Finally, the observed high per-capita growth rates in developing regions boost labor demand and draws women into the labor force particularly given high existing male participation rates (Klasen 2017).

However, the trends in FLFP rates are highly heterogeneous and suggest that economic growth, fertility decline, and an expansion of female education need not translate into commensurate increases in female participation (Klasen 2017). On the side of the fertility decline, there is evidence that it can lead to lower female labor force participation, particularly among the poorer, rural, and less educated women. Preibe (2010) associates this reduction with the relaxation of budget constraint from having one less child. Moreover, the link between education and female labor force participation is also not straightforward, as a U-shaped relationship is often observed, with high participation rates at the very low end (women with no or very few years of schooling) as well as the very high end (women with complete tertiary education). Lastly, economic growth must be accompanied by adequate job opportunities specific to women in order to absorb them into the labor market. This is not always the case, as the job-generating growing sectors of the economy may not match the supply of female labor in terms of skills, norms, or preferences.

The mixed evidence fostered alternative explanations of why female labor force participation is lower than male’s. Two stand out. One highlights the role of internal aspirations, personal preferences and beliefs of the appropriate role of women as drivers of FLFP. According to this literature, it is women’s inner constraints that limits their low level of involvement with the labor market, rather than the market itself pushing them out of it.

A second alternative explanation highlights the role of external shocks as drivers of the level of labor force participation of women. Government policies, shifts in technology, and social protection schemes directly impact worker’s labor supply. Differentiated impacts by gender could be explained by policies that disproportionately affect women, or by shifts in technology that affect a predominantly female economic sectors. Finally, economic shocks that affect households where men are traditionally wage earners may result in a differentiated effect on labor force participation for women.

Below we summarize the most prominent studies in each of the three described group of drivers of female labor force participation in the literature: endowments, internal constraints and external constraints.

1. **Endowments**

   1.1. **Time**

Given a limited time endowment, an individual’s time is split between leisure, paid labor, and household production (unpaid labor). The gendered distribution of tasks within the household, where the woman is responsible for most household chores, leads to competing demands on women’s time. The 2012 World Development Report on Gender Equality and Development notes that women work more than men, once unpaid work is accounted for. As a result of the unequal allocation of care responsibilities, many women experience time poverty which adversely affects their ability to participate in the labor market and work in the jobs that they may desire (WBG,
Furthermore, unequal domestic responsibility restricts women’s employment options to occupational arrangements that allow time flexibility and management of care responsibilities.

Literature points that the most prominent elements competing for women’s time are fertility, carework for children and elderly, and household tasks. We review the main evidence of how these elements affect female labor force participation in this subsection.

**Fertility**

Choices regarding fertility, labor market participation, and (adult) human capital attainment are linked, and dynamic in nature. Understanding the link between fertility and labor participation is challenging for two reasons. First, the direction of the causality is unclear. While fertility and birth timing have important impacts on labor market participation and wages, participation and wages also influence timing and fertility decisions (Clarke, 2016). Second, two countervailing forces are at play. An additional child increases the mother’s opportunity cost of labor through a higher domestic workload, thus decreasing labor force participation; but at the same time, childbearing also significantly increases demand for consumption goods in the household, which pushes mothers to join the labor force. The net effect of these countervailing forces is uncertain, as it depends on the context and on women’s budget constraints.

Some of the literature that points out to a negative relationship between fertility and labor participation uses natural experiments – such as the introduction of birth control pills (Bailey 2013) or changes in abortion legislation (Bloom et al. 2009 and Angrist and Evans 1996) – to conclude that children have a negative effect on their mother’s labor supply. Similarly, instrumental variable estimates are also a popular methodology employed to determine the effect of fertility on mothers. Giving birth to twins is an unanticipated event, shifting the total number of children. Similarly, parental preferences over mixed sibling-sex composition increases the number of children by an additional one. Angrist and Evans (1998) are the first to find a negative impact of an additional child on the FLFP in the US, using the abovementioned instrumental variables. Caceres-Delpiano (2008) also use multiple births to explore the impact of childbearing on FLFP in 42 countries. Even though he focuses on employment rather than labor force participation, which is also negatively affected by having an additional child, the signs and magnitude of existing estimates largely point towards a significant negative impact of the effect of fertility on labor market outcomes. However, the negative effects he finds are not universal.

The sign and degree of the relationship between fertility and mother’s work behavior is often mediated by the country’s stage of economic development (Aaronson et al 2017). Using instrumental variable strategies on historic series of data spanning 103 countries between the 18th and 21st centuries, Aaronson et al (2017) find that fertility has a negligible effect on female labor supply in low-development contexts, but a large negative effect in high-development contexts. Similarly, Agüero and Marks’ (2008) find no effect on women’s labor force participation for a group of 6 Latin American countries. Their study explores an alternative instrument of childless mothers undergoing infertility treatments. Although these findings suggest a lack of negative effect on poor and developing countries, the criteria is not entirely straightforward. Godefroy’s (2017) analysis of changes to women’s legal rights in Nigeria finds a robust negative relationship between fertility and mother’s work, while Jaramillos’s (2016) study using instrumental variables in Peru finds a negative
relationship on women’s employment as well. Thus proving that the negative effects of fertility are not circumscribed to developed economies.

Two key forces interact as wages increase during the process of economic development: households face an increased time cost of fertility (substitution effect) but also experience increased income through better job opportunities (income effect). Goldin (1995) argues that the substitution effect dominates during economic development and arises from changes in the sectoral and occupational structure of female jobs. In particular, as economies evolve, women’s labor market opportunities transition from agricultural and self-employment to urban wage work. The latter tends to be less compatible with raising children and causes some movement out of the labor force (Jaffe and Azumi 1960; McCabe and Rosenzweig 1976; Kupinsky 1977; Goldin 1995; Galor and Weil 1996; Edwards and Field-Hendrey 2002; and Szulga 2013).

Given the impact that an additional child has on women’s FLFP, a growing literature documents a causal relationship between access to child care or early education and the propensity of mothers to work, a finding that is consistent with leaving the workforce when labor market opportunities become less compatible with child rearing (Berlinski and Galiani 2007; Baker, Gruber, and Milligan 2008; Cascio 2009; Havnes and Mogstad 2011; Fitzpatrick 2012; and Herbst 2017). In line with this, recent documented shifts to positive correlations between total fertility rate and FLFP in some developed countries, which may be attributed to higher substitutability of direct childcare and childcare outside the home, as well as access to higher quality childcare outside the home (Hwang, et al 2017).

These results indicate that there are mediating factors in the fertility-FLFP relationship. The ability to share the childcare burden for women in developing contexts is a factor in their availability to enter or remain in the labor market. In a study exploiting regional differences in China’s second child law\(^3\), Cao (2019) show that while a second child reduces maternal labor force participation, particularly for women with migrant husbands, labor supply is not reduced for women living in three-generation families. The author(s) attributes this to the availability of time and resources for childcare from other family members. Similarly, using panel data from Ghana, Heath (2017) shows that fertility can actually increase female labor supply given sufficiently high returns to financial investments in children. The author finds that labor supply on the extensive margin (whether to work or not) drops in the presence of children, but this effect is mediated by the presence of other adults in the household.\(^4\)

Given women’s disproportionate care burden, when deciding to join the labor force women may place high value on flexible work hours, parental leave, or support in terms of childcare. In the absence of maternity leave, formal and informal childcare, and flexible work arrangements (temporal flexibility or part time work), women are left with options of the informal economy, or self employment, in order to balance work and domestic responsibilities. Surveys and interviews with women working in the informal sector have supported this connection between responsibilities and

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\(^3\) In some parts of rural China, couples that have a female firstborn are allowed to have an additional child.

\(^4\) Interestingly, labor supply on the intensive margin (hours worked) actually increases as a result of a child for the women who stay in the labor force. According to the authors the increase in labor supply might correspond to a higher perceived importance of financial inputs in children, as compared to time investments.
informality or self employment. For example, 20% of women surveyed in the Philippines reported family responsibilities as the reason they engaged in informal rather than formal work (Verceles & Beltran 2004). A study of small businesses in Bangladesh found that 13% of women cited family responsibilities as a reason they turned to entrepreneurship, as compared to 1% of men (Marcucci 2001).

**Carework**

**Childcare**

There is a growing body of evidence which suggests that the *increased availability* of childcare options results in an increase in female labor force participation and employment rates. Part of this literature has investigated this relationship mostly for younger age groups (preschool) in developed countries with relatively high FLFP rates (Blau and Tekin (2007), and Blau and Currie (2006) summarize some of this vast literature). The majority of these studies use non-experimental methodologies, using childcare expansions, discontinuities in eligibility or other policy changes to address this causal effect. Results for the US, Canada and European countries with similar FLFP are mostly positive (Gelbach, 2002; Baker et al., 2008; Lefebvre and Merrigan, 2008; Nollenberger and Rodriguez-Planas, 2015), generally finding that childcare increases the probability of mother’s labor force participation and employment.

Evidence from developing and middle-income countries also shows a strong positive link between access to childcare and maternal labor force participation. Evaluation of a childcare expansion policy in Mexico, which covered 90% of the cost of enrolling children, increased women’s probability of working (Calderon, 2012). The author uses triple differences and synthetic controls methods to estimate the impact on FLFP. Additional studies in Brazil and Chile support the relationship between female labor force participation and accessibility of childcare options. In Brazil, de Barros et al. (2011) evaluate the impacts of a lottery for selection into free childcare. They find sizeable effects on women’s employment. The effects are large even among women who did not work before the lottery, suggesting an increase in FLFP. In Chile, Martínez and Perticará (2017) performed randomized evaluation on a program that gave mothers three hours of daily afterschool care for children aged 6 to 13 years old. They showed that access to the program increased female labor force participation by 7% and employment by 5%.

Other authors also focus on employment variables. Berlinski and Galiani (2007) use difference in difference methodologies to estimate the impact of subsidized public schools in the context of large scale pre-primary school construction project in Argentina. They find that the program has positive effects on women’s employment. Similarly, Attanasio and Vera-Hernandez 2004, use instrumental variables to identify the impact of a program in Colombia that provides informal child care. They find that the programme has large positive effects on women’s employment rates and hours worked.

Noteworthy, the evidence indicates that the presence of childcare options are not enough – they must be *affordable and of good quality*. For example, a study in Romania between 1989 and 1995 concluded that both the female labor force participation rates and the decision to use paid childcare were associated with the price of childcare (Fong and Lockshin 2000). Another study, using data
from the European Community Household Panel, showed a correlation between female labor force participation and the affordability of childcare (Del Boca and Locatelli 2006).

The importance of child care prices is also true for low and middle-income countries. Lokshin et al (2000) analyze the effect of child care costs in Kenya. They find that higher costs disencourage households from relying on formal childcare and negatively impacts mother’s labor participation. Relatedly, in a thorough review of the relationship between childcare and female labor supply in Latin America in particular, Diaz and Rodriguez-Chammussy (2016) argue that the cases where childcare does not have a positive impact on female labor supply, including participation, are driven by poor quality childcare.

Eldercare

In addition to childcare, women face the brunt of elderly care in the household, another factor competing for women’s time. If the burden falls only on them, FLFP is expected to drop. Female labor supply thus depends on whether women live with their parents or in-laws. But the empirical results around this relationship are mixed and context dependent, as are norms around post-marital residence that affect women’s time allocation. As seen in the abovementioned case of China, living with elderly generations can also reduce a mother’s burden and thus increase their FLFP, if the parents and in-laws provide child care support.

Several authors established a positive impact of intergenerational co-residence on the labor force participation of married women: living with parents or in-laws increases the probability of female labor force participation by 56 percentage points in the US (Kolodinsky and Shirey, 2000), by 28 percentage points in China when analysis is limited to co-residence with own parents (Shen et al., 2016), by 19-24 percentage points in Japan (Oishi and Oshio, 2006), and by 7 percentage points in urban China (Maurer-Fazio et al., 2011). All of these studies claim that the overall positive impact is due to parental assistance with child care and housekeeping. Only Shen et al. (2016) explicitly test and confirm this claim.

However, other recent empirical studies find a negative relationship between elderly care responsibilities and female labor force participation, particularly in contexts with stricter normative expectations around women’s activities. This can be especially detrimental to women’s lifetime labor market outcomes, as the largest amount of intergenerational time transfers are provided by middle-aged women (45-65 years old) both to their older and younger generations of family members. Thus, the height of their care responsibilities often come during women’s most productive years (Albertini et al. 2007; World Bank Group 2015). Landman et al (2016) find that the effect of coresidence on female labor supply in Kyrgyzstan is negative and insignificant. The authors exploit a tradition in Central Asia where the youngest son of a family usually lives with his parents, and instrument co-residence with being married to a youngest son. The authors find that women who co-reside in Kyrgyzstan have more children, spend similar time on housekeeping tasks and child care, and invest more time in elder care compared with women who do not co-reside. These mechanisms appear to be inherently different from those in less patrilocal settings where co-residing parents relieve the women from household chores.

There are still few acceptable market-based options for eldercare in developing countries compared with childcare (Todd 2013). In the developed context, motivated by the fast aging population, the Japanese government introduced a long-term care insurance (LTCI) initiative that provided cash
allowances for elderly care services purchased through the formal sector, leading to growth in the formal elderly care market. Sugawara and Nakamura (2014) estimate the effects of care requirements on female labor supply in Japan for periods before and after the launch of the LTCI. They find that while the female employment rate is negatively correlated with caregiving for disabled elders, the magnitude of this negative correlation decreased after the introduction of the LTCI. This is consistent with a model where the long-term care insurance initiative decreased costs of formal elderly care, freeing up time for daughters-in-law to work outside the home. They find heterogeneity of effects by gender of the elder. As a result of the LTCI, care for male elders no longer formed an obstacle to female work, while care for female elderly still has negative effects on the female labor supply, indicating that when a female elder is disabled, not only caregiving but also housekeeping burdens are turned over to family members, thereby posing a more severe time constraint for coresiding females.

Overall, it seems that the context and the expected role of women in each society determines whether or not the presence of an elderly persons in the household will affect a women’s propensity to work. In settings where living with elderly is common and not closely tied to them needing care, coresidence may enhance the capacity for women to work, as older parents or parents-in-laws assist with child-caring duties. In other settings, like the US, where coresidence is relatively uncommon unless the older person needs care, the presence of elderly likely imposes demands on women that compete with their capacity to work. Finally, in more traditional patriarchal society where women are expected to sacrifice their careers for their husbands and parents/in-laws, eldercare is a deterrent of FLFP.

Home Production

Besides allocating time to fertility and caring for others, women are also in charge of the home production (e.g. cooking, cleaning). According to the 2020 Gender Snapshot of the United Nations, women work 3 times more than men on unpaid care work at home. They collect information from various sources, including household surveys, national survey, and time use surveys, among others. Based on the latest data point from surveys in over 65 countries, women’s proportion of time spent on domestic chores and care work is 10 percentage points (pp) higher than men. While men report spending on average 6,8% of their time on household chores, women report spending 17,2% of their time on household chores on average. Mexico is the most unequal in terms of the distribution of time (with a gendered difference of 20 pp in the reported proportion of time spent in household chores) and Belgium is the most equal of the group (with a 0.4 pp difference).

As women spend time doing household chores, it is expected that the introduction of new technology and access to infrastructure such as electricity, gas, pipe water, and transportation would reduce the the overall workload of domestic responsibilities in some contexts and lead to increased female labor force participation.

Rural electrification has been a growing policy agenda in many countries, with potential to impact labor supply. Dinkelman (2011) shows that large-scale household electrification post-Apartheid in

5 The Gender Snapshot is a report from the Women Count initiative of United Nations. The main goal of the project is collect gender sensitive indicators to monitor advances in the SDGs. It aims at changing the way gender statistics are used, created, shared and accessed. See more in: https://data.unwomen.org
South Africa led to a 9 to 9.5 percentage point increase in female employment. This was concurrent with increases in electric lighting and electric cooking over the same five-year period – indicating that decreases in time costs of home production were contributing to women’s decisions to join the labor force. Similarly, household electrification in Nicaragua was found to increase young rural women’s (women under the age of 35) propensity to work outside the home by 23% (Grogan and Sadanand 2013). Access to electric light dramatically increased the length of the working day allowing women the time-savings to work outside the home.

However, the increase in willingness to work due to electrification does not necessarily translate into higher employment. Salmon and Tanguy (2016) model spouses’ joint labor supply decisions in response to rural electrification in Nigeria using an instrumental variables strategy to identify the causal effect of electrification. They find that employment probability is not significantly changed for either men or women. In addition, when considering dependant labor supply decisions among husbands and wives, electrification only increases husbands’ working time.

Increasing women’s agency over their own fertility choices, expanding access to childcare and eldercare, and ensuring access to basic services such as electrification and running water allow women to participate in the labor market with greater involvement. The policy agenda in the developing world might already be focusing on policies that free up women’s time. However, we must acknowledge these policies do not ensure more opportunities (jobs), nor do it translate into good quality employment.

Some policy circles highlight how good it will be for women to participate in the efforts to expand the care industry. But again, while we agree that more opportunities may mean that more women will end up working, there is a trade-off because those jobs tend to be of low quality, burdensome, and badly paid. Thus, they might increase FLFP (by freeing up women’s time and offering employment opportunities), but reduce quality of employment and reinforce gender-based segregation.

1.2. Skills & Education

Educational attainment is one of the key determinants of labor market outcomes in developed and developing countries. As the seminal work of Becker (1961) stated, individuals accumulate a set of skills through education or training which they can then use to join the labor market, become more productive or even earn higher wages. More recently, Heckman et al. (2010) found that educational attainment at almost every level causally produces gains on the labor market.

Education levels of women have considerably improved in many developing contexts over the last decades. In East Asia and the Pacific (EAP), girls used to complete less than one year of schooling in 1950. Now, they enroll and stay in school as or even longer than boys (World Bank Regional Report, 2018a). According to the regional report of EAP, girls are also learning as much or more than boys – they outperform boys by one year in reading test scores.

Other regions follow a similar pattern. South Asia has not achieved universal enrollment, but has significantly decreased the enrollment gap between boys and girls. India has managed to shrinked its gap to near zero-levels. Similarly to East Asia, girls in primary and secondary school in South Asia perform at the same level as boys. However, retention in post-secondary levels is still low and women are tracked into low-productivity streams. When it comes to choosing fields in higher
education, women do not go for STEM fields, which has long term effects on their employment opportunities and expected income (World Bank Regional Report, 2018b).

Such a lack of opportunity is also present in other regions. In the Middle East and North Africa, girls outperform boys in literacy and numeracy since very early on. However, the region exhibits some of the lowest female labor force participation around the world: only 20% of women participate in the labor force. This paradox is partly explained by social norms in the region, which we will further explore in the next section (World Bank Regional Report, 2018c). In the Africa region, there is not much difference in performance between girls and boys, but girls are disproportionately left out of lower-secondary and upper-secondary levels. Cultural practices such as child-marriage and early pregnancies are a leading cause of this gender gap (World Bank Regional Report, 2018d).

There are several channels through which education can later affect female labor force participation. We focus on two ways of acquiring skills and education—one is through formal schooling (educational attainment) and the other one is through continuing education (vocational and job training).

**Educational attainment**

Theoretically, the higher the educational attainment, the better the labor outcomes. Higher levels of schooling increase the opportunity cost of not entering the labor market, as higher education corresponds with higher potential earnings. Schooling also affects labor market participation indirectly as it raises the age of marriage and age at first birth, allowing women to develop stronger ties to the labor market. More educated women may be more empowered to influence household decision making or resisting constricting social norms, leading to greater labor market activity.

Empirically, contrary to common belief, the relationship between education and female LFP is weak and the evidence that portrays this relationship is thin. As Klasen (2019) states, this relationship often takes the form of a U-shaped function, with higher participation at lower levels of educational attainment and at very high levels of education. The recent expansion of schooling around the developing world has thus shifted women’s educational attainment to intermediate levels, associated with lower levels of labor force participation (minimum of the U-shaped function).

Some research of the nature of this relationship has been found in Latin America and the Caribbean and in East Asia. Gasparini and Marchionni (2017) find that in the past 2 decades the expansion of education has allowed more women to get tertiary education, and that these women are more likely to enter the labor market. Similarly, in Bangladesh, Rahman and Islam (2013) find that since the 1990’s economic growth acceleration, education and female labor force participation have been increasing in tandem. However, women’s employment in Bangladesh during this period seems too dependent on a single industry. The authors also find challenges related to wages and other aspects of compliance with labor standards, that affect women disproportionately.

A specific case in Bangladesh is studied by Shamsuddin (2015). The Female Secondary Education Stipend Programme provided girls with stipends, books, tuition fees, and exam fees, conditional on school attendance in grades 6 to 10. A long-term impact evaluation of the program finds that women who were exposed to the program for the full five years had 6 percentage points higher labor force participation rates. However, participation actually decreased wages by 17% as the surplus of secondary-school-educated women struggled to find productive employment.
In India, Klasen and Pieters (2012) analyze the trends in urban FLFP from 1983-2005, period where India’s economy grew significantly. They find that economic pull factors (i.e. more job opportunities and higher-paying jobs) only attract highly educated women into the labor force, increasing their participation. For women with less than secondary school, no effect of higher wages on participation is found.

Similarly to the evidence on labor force participation, gains in education do not always translate into gains in employment, indicating presence of bottlenecks during the school to work transition. For example, despite well documented effects of the Mexican conditional cash transfer program Progresa/Oportunidades on human capital accumulation, there is very little evidence of program impacts on employment, wages or inter-generational occupational mobility among program beneficiaries (Rodriguez-Oreggia and Freije, 2012). Levy (2007) warned beforehand about the education conditionality of this cash transfer and the fact that increases in schooling as a result of the program needed to be met with better economic and social conditions in order to result in better labor market outcomes. Particularly, the author highlights the need of additional policies from the supply side. Thus, even when education is accompanied with better economic conditions, programs that aim to improve education and employability of the workforce need be complemented by demand-side interventions.

**Job and vocational training**

Beyond formal educational attainment, vocational and job training programs are an increasingly common policy intervention to skill-up the workforce and tackle unemployment in developing countries.

Unfortunately, the empirical evidence linking training programs with female LFP is largely inconclusive. This is mainly explained by the fact that the evidence is generally indirect, measuring employment rates but not FLFP. Participants in job training programs are, by definition, already active members of the labor force, since they are explicitly preparing for work. However, there is little information on whether the programs pulled participants from inactivity into the labor force, or whether they were already active. Moreover, the impacts of job trainings programs on employment rates vary according to the context and content of the programs: depending on the nature of skills taught (hard skill, soft skills, or life skills), duration of the program, and incentives for employers to hire workers trained in these programs.

In the case that the targeted sample are school-age girls (and are thus inactive by definition), there is indirect evidence of skills training programs improving labor force participation. Bandiera et al (2017) experimentally evaluate a women’s empowerment program in Uganda where adolescent girls gained vocational training and sex education through adolescent development clubs. The authors find that four years after the intervention, girls who received the training were 48% more likely to be involved in income-generating activities. This effect is driven by engagement with self-employment, and there is no impact found on wage employment.

In Liberia, an impact evalatuion of the Adolescent Girls Initiative (EPAG) – a public-private partnership aiming to support adolescent girls and young women in transitioning from school to productive employment – provides evidence that skills training can be an effective policy option for increasing employment among young women. The program led to a 47% increase in employment
and an 80% increase in average weekly income among project beneficiaries, compared to those in the control group (Franck et al, 2014).

Despite the abovementioned positive effects, when it comes to the effect of job training program on employment, there are some doubts on its effectiveness. One concern is that trainings affect workers’ expectations of employment outcomes. If these expectations are not met by the labor market, then workers may end up desincouraged. Acevedo et al. (2017) show the importance of these expectations in Dominican Republic. They find that imbedding a soft skill component to a vocational training program had positive effects on both skills and labor market expectations for women, but only only improved expectations for men, with no impact on skills. This created the conditions for discouragement as expectations exceed the returns to acquired skills. In the short term, women had higher employment rates, in higher paying jobs, with higher satisfaction levels, while men had zero and negative effects on employment outcomes. Over time, the women in the control group were able to catch up and the men in the treatment group lowered their expectations, accepting an employment that equalized them with the control group. While the program positively improved women’s wellbeing, men were ultimately disappointed and discouraged, leading to deterioration in the quality of their lives.

There is no consensus in the literature about a positive effect of job training on FLFP, but the evidence seems to suggest that women respond positively to training. A still open policy question is why women do not receive the same training opportunities as men. One hypothesis follows from Lazer and Rosen (1990) who state that firms take into account the employees’ probability of finding non-market rewards in the period following training before offering it. And, as women have a higher probability of leaving the firm, firms often overlook them. An alternative hypothesis proposes that women simply do not seek training opportunities—which could be explained by lack of information about programs, lack of budget, competing responsibilities (e.g. childcare), credit constraints, or negative perceptions about the relevance and quality of the training.

1.3. Financial Assets

Self-employment is an important avenue for women’s labor force participation. However, women are often excluded from formal financial markets which constrains their entrepreneurial activities both directly, via a lower capital stock for business development, and indirectly, via the empowerment/household decision-making channel.

Capital constraints

The Global Findex database shows that, while bank account ownership continues to grow globally, gender inequality persists—particularly in developing economies where men are 9% more likely to hold a bank account than women (Demirguc-Kunt et al, 2017). Limited access to financial products results in reduced chances of overcoming capital constraints, a problem that is self-perpetuating as lower starting capital means decreased ability to get capital using collateral.

\[\text{6 It is worth mentioning that recent literature is exploring promising and innovative ways around the credit constraint, such as the use of psychometric data as collateral (see Alibhai et al, 2018 for instance).}\]
Evidence about the impact of access to capital and financial inclusion on labor force participation is very thin. Most studies measure labor supply on the intensive margin (i.e., hours worked) rather than the extensive margin (i.e., labor market entry, including entrepreneurs), and the studies that do explore female labor force participation as outcome do not differentiate by whether the respondent was previously active in the labor market or not.

A strand of the (thin) literature suggests that financial inclusion does have a positive impact on self-employment, wage-employment, and female empowerment (which may in turn affect female labor force participation). Ausburg et al. (2015) explore the effects of offering loans to applicants who were marginally rejected by a micro-finance institution on labor outcomes in Bosnia and find an increase in labor supply and self employment among 16-19 year-old women. Similarly, Bruhn and Love (2011) find sizeable positive effects of access to finance on labor market activity in the context of the expansion of bank branches of Banco Azteca in Mexico. Access to finance reduced the proportion of individuals not working. While men were more likely to become informal business owners, women were more likely to become wage-earners.

Yet, other strand of the literature fails to find an impact of finance on labor outcomes. Crepon et al. (2011) study the expansion of a microcredit program in rural Morocco. The authors find positive effects of investment in the number of assets used for self-employment and in profits. However, they fail to find effects on female empowerment, which included mobility inside and outside the village. Similarly, Banerjee et al. (2015) study the effects of the expansion of a microcredit program in Hyderabad, India. They find positive effects of access to credit on profits and investments, but no effect on women’s empowerment.

**Financial access and empowerment**

Financial inclusion and access to savings and credit products can foster female labor force participation by giving women agency to make consumption and savings decisions over household income. For example, using data from an experiment in rural India, Desai and Joshi (2014) find that the formation of self-help groups (SHGs) among rural women increases non-farm employment, and decision-making and civic engagement among participating women. Via a mixture of increased education, access to finance, and linkages to wider development programs, the SHGs help women acquire greater personal autonomy. However, it is not clear whether the program affects LFP decisions of previously inactive women and whether increased empowerment was the channel through which the effect operates.

Furthermore, it is not only the availability of financial products but the type of products offered that matter to lift constraints to female labor supply. Field et al. (2016) examine the role of supply-side constraints linked to low household bargaining power and traditional gender norms in suppressing female employment. Their hypothesis is as follows. Having a wife who works is a source of social stigma or shame for Indian men who are expected to economically provide for the household (Boudet et al., 2012). Low female bargaining power would thus induce latent female workers to stay out of the labor force in order to abide by their husbands’ wishes. Increasing women’s bargaining power could therefore draw women into the labor force and increase ability to control their own
income. This creates a positive feedback loop: an increase in control over their own earnings incentivizes women’s work, which in turn increases earnings.

To test for this, the authors experimentally varied whether women’s wages from India’s public workfare program were deposited into female-owned bank accounts instead of into the male household head’s account (the status quo). The treatment increased women’s work, both in the program and in the private sector, despite no change in market wages. Treatment effects are concentrated among two groups of women: those who had not previously worked for the program and those whose husbands disapprove of women working. The authors note that financial inclusion alone did not move the needle on FLFP. Although the intervention roughly doubled the share of women who had bank accounts, receiving only a bank account (with or without a supplementary information session) had no observable impact on women’s employment or earnings. Thus access to a safe place for a woman to keep her wages is not enough—resources need to be explicitly directed to that savings account and women need to be given the basic tools to use it.

Innovations in digital financial products and services, such as mobile accounts and digital payments, offer possible ways to lower the cost of access to financial services and enable women to control and access financial transactions (such as remittances and wage payments) directly (World Bank Group Gender Strategy 2016). Further research is needed about the extent to which increased control over income and finances improve women’s labor force participation.

1.4. Networks & Social Capital

In the presence of information asymmetries between workers and firms, firms leverage networks to identify and hire productive workers. Referred workers are more likely than non-referred workers to be hired, all else equal (Pallais and Sands, 2015). Referral-based hiring has the potential to disadvantage qualified women, highlighting another potential channel behind gender disparities in the labor market. In Malawi, Beaman et al. (2018) show that men systematically refer few women, despite being able to refer qualified women when explicitly asked for female candidates.

Similarly, using data on physicians’ referrals to surgeons in the US, Sarsons (2019) shows that physicians become more pessimistic about a female surgeon’s ability than a male’s after a patient death, indicated by a sharper drop in referrals to the female surgeon. Moreover, this effect is projected onto other female surgeons (i.e., after a bad experience with a female surgeon, physicians stop referring to other female surgeons)—this does not happen with male’s surgeons. Finally, Magruder (2010) demonstrates that using the father’s networks has a positive effect on the son’s, but not the daughters. The author also finds that mother’s connections do not seem to be matter.

Given that women are more constrained by lack of information about their productivity, tools that help correct asymmetric information (such as networks) are valuable assets to increase the female labor force participation. However, literature related to network and social capital mainly focuses on the success of networking for matching job seekers to jobs (i.e., focuses on individuals that are already part of the labor market), leaving out the relationship between networks and probability of finding a job. The thin literature that explore this relation follows.

Stoloff et al. (1999) examine the effect of network structure on women’s paid labor force participation in Los Angeles. Two findings regarding FLFP are worth mentioning. The first is that women with more diverse and high quality social resources are more likely to enter the labor force,
after controlling for education and background. The second is that women from more disadvantaged background with children rely on their social networks for childcare to enter the workforce. The paper makes a distinction about the type of connections required for each outcome.

Puga and Soto (2018) also draw a distinction on different types of social capital. The authors draw from empirical evidence from Chile to find that the relevant networks that drive women’s labor force participation are those connections that are weaker but far-reaching. Networks connecting women with high-status individuals. However, these networks are very unequal, as the positive effects of using these networks are only valid among women in the richest quintile of the household income. Given their findings, the authors reject the idea that policy should focus on social capital as a way of increasing economic integration of women, as it shifts the responsibility of providing women’s fair labor conditions from the state to the women.

Besides helping getting a job, networks also provide a bridge for women to join the labor force in traditionally male-dominated sectors. Alibahi et al (2017) study the occupational gender gap among entrepreneurs. Their findings show that women-owned enterprises that manage to crossover to male-dominated sectors perform better on average than female entrepreneurs in female-dominated sectors. They explore the mechanisms and find that it is not education nor skills what helps women crossover, rather women’s network connections what helps them enter a the male-dominated sectors. Specifically, the relationships with male relatives influences the probability of entering such spaces. Pande et al. (2015) show that friendship networks also matter to join male-dominated activities such as entrepreneurship. When women bring a friend to a business skills training, they are more likely to take out a loan and to use it for business purposes, increase household income and consumption, and less likely to report occupation as a housewife.

2. Internal Constraints

As the combined effect of purely economic factors is not enough to explain the low female labor force participation, an alternative strand of the literature hypothesizes that perceptions of the labor market and beliefs about the self in relation to the labor market are likely drivers of women’s decision to participate or not in the labor market. Empirical research around this relationship is limited. We focus on three main internal constraints—perception of opportunities and the environment, beliefs about self, reservation wages and norms.

2.1. Perceptions of opportunities

First, perceptions of opportunities available in the labor market (or lack thereof) may influence women’s decision to participate. Several studies support the fact that availability of jobs and perception of opportunities themselves are drivers of women’s empowerment. Jensen (2012), for instance, provides evidence of how job recruitment services helped women in rural India get jobs in a recently exogenously developed industry. As a result of job offers, women became less likely to have children or get married and chose to enter the labor force, suggesting an increase in aspirations for their careers.

Similarly, Heath and Mobarak (2015) study the impact of the expansion of ready-made garment industry in Bangladesh. The authors find that the rise in job opportunities explains the decline in fertility, the increase of age at marriage, and the increase of educational attainment among young
women. Majlesi (2015) studies the effect of job opportunities for both men and women in the manufacturing industry of Mexico. The author finds that job opportunities increase women bargaining power within the household, and the results are true for both working and non-working women. Although neither paper directly addresses the reinforcement of labor force participation, as the Jensen (2012) paper does, they do clearly state how perception of job opportunities lift women’s internal constraint, as shown by higher bargaining power and the decision to delay marriage and having children.

Second, even if opportunities are available, perception of the work environment (e.g., competitiveness, male dominance, etc.) may not be conducive to women entering the labor market. Exploiting a natural experiment, Flory et al (2015) analyze whether competition incentives differentially affect men’s and women’s labor choices, and the extent to which male connotations on a job advertisement affect application patterns. The authors find that the applicant pool becomes significantly more male dominated as the compensation package becomes more heavily reliant on individual relative performance. This is mainly driven by women’s stronger aversion to competition, rather than men’s preference for it. They also find that hiring into versions of the job that have removed masculine connotations substantially attenuates gender differences in application patterns.

This is consistent with Akerlof and Kranton (2000), who argue that gender–job associations are drivers of gender-specific employment patterns and predict that women sort into employments whose requirements match construed female attributes. Thus, it follows that, if available work opportunities are (or are perceived to be) competitive or masculine, women would be less likely to enter the labor market. However the extent to which this is a binding constraint to female labor force participation is still an open question.

2.2. Aspirations & Self-confidence

Beliefs about own ability are also a key input to many economic decisions and are likely to impact labor market outcomes (e.g. how job candidates present themselves). However, there is limited empirical evidence from developed or developing countries linking psychological barriers such as low aspirations or self confidence to female labor force participation. We expect this link to matter, since there is evidence of the role of aspirations and self confidence on outcomes that are drivers of LFP—such as education (Beaman et al., 2012)—and on outcomes related to LFP—such as entrepreneurship (Campos et al., 2017) and employment (Heckman et al., 2006).

McKelway (2018) finds that women’s beliefs in own abilities are a constraint to employment and, likely, labor force participation. Boosting women’s generalized self efficacy, or the belief in own ability to attain desired outcomes, increases likelihood of women enrolling in a program that offers work opportunities, as well as probability of having employment. Similarly, McKelway finds that the promotion of a work opportunity also leads to dramatic increases in enrollment for the work opportunity but the promotion treatment (which was done with the family) has important consequences for women’s control over income which in turn affects women’s decision to enroll in the program. A claim of impact on FLPF can be made to the extent that program enrollment is a

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7 These findings are consistent with Field et al (2016) above, where money from a public workfare program was deposited to female-owned accounts – instead of men-owned account. The treatment increased women’s work.
valid proxy for LFP. While the study uses a sample of women within a geographical catchment area, there is no indication of their labor force status at baseline, and employment status was not a sample selection criteria (a small fraction of women were employed at baseline).

Interestingly, the author also finds a positive feedback mechanism of employment on self efficacy. Randomly offering a job to women who were enrolled in the program to receive work opportunities results in higher scores on generalized self efficacy months later—supporting the hypothesis that exclusion from the labor market is a driver of low self-confidence, which in turn further constrains labor market participation.

Women are more likely to underestimate their skills (Niederle and Vesterlund, 2007) and are thus less confident in their ability to obtain a job because of feelings of inadequacy or beliefs that no jobs are available to fit their skill level. Coffman et al. (2019) study through laboratory and field experiments the decision to apply to a more challenging and higher paying job. They find that women were less likely to apply to jobs in male-dominated domains. Two factors drive this decision. The first is that women have more pessimistic beliefs about their own abilities than men in male-type domains. The second is that women’s belief of what is expected out of a candidate—referred to “the bar” by the authors—is higher for a given opportunity. Although this paper provides compelling evidence of the gendered difference of self-confidence, more research is needed to understand whether this difference in beliefs also prevents women from participating in the labor force.

2.3. Reservation Wages

Even though the gender gap in reservation wages is well documented, there is no direct evidence on whether a change in the reservation wage may induce changes in labor force participation. However, several strands of the labor literature combine to provide an insight into the role of reservation wages as a driver of female labor force participation.

Gender differences in reservation wages may arise due to different preferences for non-working time (Bowlus and Grogan, 2009), differing personality traits and anticipate discriminatory hiring behavior by firms. Different personality traits include men being overconfident (see Barber and Odean, 2001), women being risk averse (Eckel and Grossmann, 2008; Pannenberg, 2010), women’s preferences for occupations with higher social prestige (Kleinjans and Fullerton, 2013) or women’s preferences for workplace flexibility (Goldin, 2014). Anticipate discriminatory hiring behavior by firms implies that women and adjust their reservation wage downwards to maximize future employment prospects.

Furthermore, this reservation wage gap has been shown to be a key factor in the realized wage gap. Caliendo et al. (2017) examine the importance of the gender differences in reservation wages for the gender wage gap in a decomposition analysis using instrumental variables to address the potential endogeneity of reservation wages. The authors find that the inclusion of reservation wages halves the gender gap—making the remaining difference economically small and statistically insignificant, and implying that reservation wages play an important role for the gender gap in realized wages.

Given the importance of reservation wages for realized wages, it is expected that the former also play an important role in determining female LFP. Two opposing potential mechanisms are at play when it comes to reservation wages and FLFP. They are either too high, deterring women from
working as their expectations are unrealistic (supply-side issue). Or they are too low, so wages don’t exceed the reservation wages (demand-side issue). The evidence is not consistent on which of these mechanisms is at play for different contexts and it should be part of a research agenda. A strand of this (inconclusive) literature, which focuses on the relationship between cash transfers and remittances and reservation wages, follows.

Low and middle-income countries have implemented conditional or unconditional cash transfer schemes to improve income and alleviate poverty at the household level. One concern is that the income effect from a cash transfer, combined with a sufficient preference for leisure, could lead women to drop out of the labor force upon receiving cash transfers. However, the empirical literature does not find this hypothesized negative impact of cash transfers on female labor force participation in eligible households. Banerjee et al. (2015) study this relationship in the context of seven conditional and unconditional cash transfer programs in six countries: Honduras, Indonesia, Morocco, Mexico (two programs), Nicaragua and the Philippines. All of these cash transfer schemes were implemented through randomized trials and aimed at reducing poverty. The authors do not find significant effect of transfers on female (or male) labor force participation among eligible households. Similarly, Alzua et al. (2013) empirically evaluate three of the same transfer programs in Latin America (RPS in Nicaragua, PRAF in Honduras, and PROGRESA in Mexico) and similarly find that the programs have not introduced any substantial disincentives to work and that they have had no significant effect on labor supply for individuals or households in treatment localities.

Similar to other forms of non-labor income, it is expected that remittances increase the reservation wage of non-migrants in the household and decrease their likelihood of entering or staying in the labor market (Killingsworth, 1983). On the other hand, households may use the extra income to invest in an existing household enterprise or to start a new business. This would likely increase the demand for household labor and result in an increase in non-migrants’ labor supply. Empirical evidence from studies on migrant sending countries supports the reservation wage hypothesis and points to a decline in labor force participation—the effect is particularly important among women (Rodriguez and Tiongson, 2001; Acosta, 2006; Amuedo-Dorantes and Pozo, 2006; Lokshin and Glinkaya, 2009; Mendola and Carletto, 2009).

2.4. Norms

Finally, the empirical literature also suggests that gender norms are one of the main drivers of female labor force participation. Norms are persistent, culturally-specific, and passed down from generation to generation (Fernandez et al., 2004; Fernandez and Fogli, 2009), but can change over time (Fernandez, 2013). Agency, economic opportunities, and endowments are linked and often reinforce gender equality outcomes (Duflo, 2005; 2013). Even when economic opportunities and endowments are closer to gender equality, social norms can create barriers to success.

These constricting norms shape power relationships and restrict women’s mobility and network, which in turn shape gender roles regarding time use and household responsibilities. Furthermore, these usually turn into discriminatory legislation and practices (Klugman 2014, World Bank 2011b). In the following subsections we provide an overview of some of the relationships between norms and FLFP. It should be noted that we do not intend to include every aspect of social norms essentially because norms underly everything.

**Social Biases & Gender Norms**
Firstly, it is well documented that gender social norms restrict women’s activity choices. Muñoz Boudet et al. (2013) review qualitative studies from 370 focus groups in 20 countries and confirm that, in contexts where it is considered inappropriate for women to engage socially or commercially with unrelated men, women’s economic opportunities are restricted (e.g. being forbidden to work outside of the home). In Pakistan, Adeel et al. (2017) find that, as a result of social norms constraining women to avoid interaction with men in public spaces, women conduct far fewer trips outside the home for work than men. Furthermore, when women do travel, the distance is much shorter. In India, men explicitly state that they do not want their wives to work for pay outside the home (Field et al., 2016). In Pakistan, a large proportion of women who do not work outside the home report that their husbands and fathers exclusively made the decision of whether they were allowed to work (Field and Vyborny, 2016). Norms also dictate how and to whom job opportunities should be prioritized in context of weak demand for work. Particularly in northern Africa, Eastern Europe, South Asia and east Asia, respondents to the World Values Survey (Wave 6), indicate that when jobs are scarce, men should have more right to a job than women.

Unfortunately, the direct causal relationship between norms, men and women’s personal preferences, and women’s actual labor market decisions is not well understood. Bernhardt et al (2018) begin to fill that gap by investigating the extent to which women’s versus their husbands’ support for (or opposition to) female labor predicts actual employment decisions. First, they find evidence of important gender asymmetries in the perceived social costs associated with female work: respondents report that the husband of a working wife will receive sanction from more community members than the wife herself. Consistent with this, men are systematically more likely than women to voice opposition to women working. Though the authors do not have causal estimates, they find suggestive evidence that the husband’s beliefs about women’s work and the wife’s perception of her husbands beliefs are stronger predictors of the wife’s employment than the woman’s own beliefs.

Similarly, in the context of Saudi Arabia, where through the custom of guardianship men dictate their wife’s labor supply decision, Bursztyn et al (2018) provide experimental evidence that misperception of social norms is a source of labor market frictions and correcting normative beliefs yields positive employment outcomes for women. They show that the vast majority of young married men in Saudi Arabia privately support FLFP outside of home from a normative perspective, while they substantially underestimate the level of support for FLFP by other similar men. Correcting these beliefs about others increases married men's willingness to let their wives join the labor force and this decision maps onto real outcomes: the wives of men whose beliefs about acceptability of FLFP were corrected are more likely to have sought a job outside of home.

More research is needed to understand the causal effect of norms on FLFP, as well as the extent to which the preferences of husbands, fathers, and other male figures regarding their women’s participation in the labor market, relative to the woman’s own preferences, shape women’s supply of labor.

However, the impact of gender norms on female labor force participation has indeed been largely observed indirectly. For instance program effects are larger where norms are more equalitarian, suggesting that more equalitarian norms are positively related with FLFP. By the contrary, countries with strict gender norms and patriarchal values tend to have lower levels of FLFP. A clear example of this pattern is observable in the Middle East and North Africa (MENA) region, where in spite of
reaching learning equality among boys and girls, FLFP rates are the lowest in the world. Many authors have tried to provide an explanation to such paradox, and found that patriarchal norms and personal values explain most of the variation in FLFP (Diwan and Varnatova, 2017; Assaad et al, 2018).

Other research also address the impact of gender roles on FLFP indirectly through evidence from intrahousehold decision-making model. Lowe and McKelway (2017) use a field experiment to examine the intrahousehold decision making regarding employment in India. The researchers partnered with a manufacturing company to offer employment opportunities to married women. Gender differences in work preferences meant there was an intra-household tension: women were often interested in working outside of the home, while their husbands opposed the idea. By experimentally varying the presentation of the work opportunity, the researchers were able to examine how information and communication affects decisions around female employment.

First, there is no evidence that husbands strategically withhold information from their wives; they fully disclose information about the employment opportunity and there are no gains to providing the information to women in addition to or instead of husbands. The authors argue this is because substantial bargaining power allows husbands to make decisions without needing to withhold information. Second, bringing women to the decision-making table by encouraging discussion lowered enrollment by 6 to 9 percentage points, indicating that joint decision-making can backfire, possibly due to arguments or husband’s resentment of suggested equality in discussions. Finally, the study finds that symbolically empowering women in decision-making by giving wives enrollment tickets backfires in the short-run, dramatically raising dropout rates, due to men being less supportive and accommodating of a decision that was not their own. Taken together, these results suggest that careful consideration should be devoted to the presentation and encouragement of women’s involvement in the household take-up decision.

Finally, it is important to note that norms are not fixed and static, and dramatic changes can be possible. In the United States, for example, in 1936 fewer than 20 percent of people supported the idea of wives working if husbands could support them. By 1998, that figure had increased to more than 80 percent (Morton et al 2014). Developing countries have also progressed with respect to these values according to the UNDP’s Gender Inequality Index, constructed on the basis of questions such of whether men should have more right to jobs than women. However, the changes are very different in magnitude. While the highest developed countries have gone from index values of 0.33 to 0.175 in the past 20 years, developing economies have gone from 0.56 to 0.47.

And, even though a good deal of attention has been paid to the intergenerational cyclicality of negative gender norms, positive intergenerational effects are possible as well. Fernandez et al. (2011) argues that the growing presence of a new type of man—one brought up in a family in which the mother worked—has been a significant factor in the increase in female labor force participation over time. They present cross-sectional evidence showing that the wives of men whose mothers worked are themselves significantly more likely to work. Growing up with a working mother either influenced a man’s preferences for a working wife or directly made him a better partner for a working woman (say, by increasing his ability to cooperate and be productive in household work).

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8 The higher the Gender Inequality Index the higher the gender inequality is in a country.
The presence of this different type of man, in turn, made investing in market skills and becoming a working woman more attractive. As the number of working mothers increased, so did the proportion of men raised with this different family model, which then helped to increase the relative supply of working women of the following generation. In this way, women who worked set an example for their sons, and thus made it easier for the next generation of women to follow in their footsteps.

In a similar fashion, Olivetti et al (2016) show that mothers and other female role models play an important role in female labor supply decisions. The authors use the variation in student composition within schools across cohorts to find that own mothers’ working hours and peers’ mothers’ working hours affect women’s own working hours in the future. They find that the pathway is likely through transmission of norms rather than possible human capital accumulation aided by working mothers’ increased investments in their children. Furthermore, peers’ mothers’ labor supply decisions have a larger impact when the adolescent girl is socially closer to her peers’ mothers.

**Safety & Mobility**

As with social norms and women’s economic activity, it is also a stylized fact that women’s mobility is often constrained by risk of violence/harassment, lack of access to transportation, and gender norms (Salon and Gulyani, 2010; Anand and Tiwari, 2006). This mobility constraint inevitably reduces women’s labor supply. However, the extent to which mobility constraints are binding in inhibiting entry into the labor market has not been widely empirically documented (Borker, 2017).

In developing countries, safety concerns and limited access to transport reduce the probability of women participating in the labor market by 16.5%, with serious consequences on the economy: the global GDP could grow by an additional $5.8 trillion if the gender gap in male and female labor force participation is decreased by 25% by 2025 (ILO WESO Report, 2017). In response to these safety concerns, countries as varied as Brazil, Egypt, India, Japan, and Mexico have offered women-only transport options, such as women-only carriages on trains and cabs specifically for women, driven by women. However, to our knowledge, there is still no evidence of the impact of these policies on female labor participation.

In a related context, Borker (2017) builds a willingness-to-pay model for travel safety and finds that young women in Delhi are willing to choose a lower quality university at which to study or pay an additional nearly $300 than men to have a safer route to commute to university. This quantification of the trade-offs that women make in educational decisions implies that mobility constraints are likely impacting women’s labor force participation decisions as well.

**3. External Constraints**

Finally, another competing hypothesis to the belief that economic factors are the main drivers of female labor force participation is the external constraints hypothesis. It is a fact that government policies, shifts in technology, and social protection schemes directly impact worker’s labor supply. If these affect workers differently by gender, then we would expect that external factors also affect the female labor supply. We focus on two main external constraints: income shocks and labor
demand. As in the internal constraints literature, evidence exploring the relationship between female LFP and the constraints is limited. The most important evidence follows.

### 3.1. Income Shocks

In households where men are traditionally the wage-earners and women are responsible for home production, increased employment uncertainty faced by men can lead to increased uncertainty in household income. In periods of economic uncertainty, two opposing forces affect female labor force participation: the income effect predicts that women who are secondary wage earners will tend to temporarily increase labor supply when their husbands suffer unemployment (known as the added worker effect, AWE), while the substitution effect predicts that unfavorable economic conditions will lead to discouragement and operate in the opposite direction. On the other hand, in periods of economic growth, the income effect predicts that lower unemployment and higher earnings of male partners and the consolidation of social safety nets will alleviate women’s pressure to look for a job and negatively affect their LFP.

In practice, the strength of these effects depend on the relevance of other factors, such as the availability of alternative strategies to cope with negative income shocks (child labor, unemployment insurance, etc.) and the existence of imperfect credit markets together with liquidity constraints. For instance, using data for the US, Mankart and Oikonomou (2016) find that households provide insurance against labor income shocks—when the primary earner (the husband) becomes unemployed, the wife joins the labor force. However, unemployment insurance distort this dynamic because wives have less incentives to leave the labor force in the first place. Similarly, Garcia-Perez and Rendon (2020) find that the AWE holds for the US labor market but the unemployment insurance may significantly alter the labor decisions of married couples due to a reassignment of the breadwinner role from men to women.

In developing economies the income effect may be larger because they usually lack extended unemployment insurance benefits, many households face financial restrictions, and the role of women as secondary workers is reinforced by solid traditional family structures with a strong attachment to traditional gender roles, and low levels of women’s skills and educational attainment. In addition, given the importance of the informal sector in the countries of the region, entry and exit barriers in the labor market are relatively low, which facilitates changes in female participation (Basu et al., 2014; Maloney, 2004).

Serrano et al (2017) find empirical evidence consistent with such a model using fixed effects estimation of female labor force participation across eighteen Latin American countries between 1987 and 2014. The authors find a countercyclical pattern where better economic conditions for primary workers cause a delay in secondary workers’ entrance into the labor market. This relationship is stronger for married women (either in formal or consensual unions) that are rural areas, and in low income households. They also provide evidence that the expansion in conditional cash transfer programs is another relevant factor associated to the deceleration in female labor supply in Latin America. In particular, the authors find that an increase in the coverage of such transfers is associated with a fall in female LFP. This result is consistent with the hypothesis that women decide to delay their entrance to the labor market due to higher unearned income and to the time required to comply with the conditionalities associated with these programs.
There are several empirical studies that analyze the validity of the AWE hypothesis in the region. For instance, Martinoty (2015) uses the collapse of the Argentina’s convertibility regime as a natural experiment to evaluate the effect of husbands’ labor situation changes in the decision of their wives’ participation, finding evidence of a statistically significant AWE. Similar results are found by Cerrutti (2000) and Paz (2009) also for Argentina in the 1990s and 2000s, respectively, Fernandes and Felicio (2005) for Brazil, and Parker and Skoufias (2004) for Mexico. On the other hand, McKenzie (2003a) and MacKenzie (2003b) find no evidence on the presence of AWE when studying household strategies to compensate the negative shocks from the financial crises of 2002 in Argentina and 1995 in Mexico.

In a more recent work, Bhalotra and Umaña-Aponte (2010) use individual data from 63 developing countries combined in a cross-country panel with aggregate variables such as GDP for the period 1986-2006. They find that the relationship between female labor and growth is negative on average for Latin America and Asia, but positive for Africa, which, the authors suggest, is due to a conventional family structure where income pooling is less the norm and there are fewer opportunities for paid employment. The authors argue that the characteristics that magnify the countercyclical pattern include the low levels of education, the positive assortative mating among the less educated, rural residence, and high fertility, among other factors related to limited wealth. Overall, these findings suggest that insurance motives underpin the dynamics of women’s work participation.

3.2. Labor Demand

Increase in labor demand can both improve the employment rate among individuals already in the labor force, and potentially increase female labor force participation among women who were not previously working, who see accessible labor demand.

There are several ways in which changes in demand for employment (both perceived and actual) affect female labor force participation. These can be divided in two broad categories: (i) macroeconomic policies that lead to increased employment demand through public work, quotas, or sectoral shifts; (ii) and firm-level policies affecting the costs and incentives to hire women.

*Macroeconomic Policies*

Many countries implement public works programs in order to build infrastructure and decrease unemployment. Descriptive evidence suggests that these programs are associated with gains in female labor force participation. Furthermore, these public works projects often demand low-skilled labor, meaning that even those individuals who previously were not engaged with the labor force can easily pick up the necessary skills on the job. This is particularly important for women, as women tend to have lower skills and target low-skilled labor.

One example of such a program is the National Rural Employment Guarantee Act (NREGA) in India. In this program, all households are eligible for 100 days of employment, which can be split between adults in the household. The guaranteed work is low-skilled manual labor. However, about 30% of jobs are reserved specifically for women. The program was developed to appeal to women (especially women outside the labor force) as it guaranteed provision of work, pay that is equal across genders and higher than prevailing wages for women, work is provided locally, and ensures on-site child care. In a survey of female NREGA workers in 2008, about half said that if they hadn’t
been working through NREGA, they would not have been working at all (Khera and Nayak 2009). Using a natural experiment exploiting phases of implementation, Azam (2012) finds that NREGA has a positive impact on labor force participation and wages, and both of these impacts are primarily driven by impacts on female workers. Given that NREGA was designed to ease multiple constraints, unclear which was the main factor (or combination of) responsible for observed increases in FLPF.

Again in India, Ghani et al (2013) find that female leaders allocate more jobs in the national public works program to women, through local implementation, thus increasing demand for female labor directly. Furthermore, there is a growing literature that points that increasing access to public goods that women care about, such as roads and healthcare, under female political leaders, led to greater female labor force participation (see Priyanka, 2019). Thus, evidence points that quotas for women (by increasing the demand for labor, even if jobs are not expanding overall) can have an effect on female participation. Then, the question is whether such quotas are desirable from a more general economic perspective such as in terms of productivity impacts—i.e. it could be the case that impacts are mixed depending on whether the jobs are high/low skills, but there is no enough evidence to address this relationship.

Government economic reforms can also affect the female LFP. In Bangladesh, the government pushed an aggressive economic reform to foster the export-oriented garment industry during the decade of 1980. Heath and Mobarak (2015) study the impact of the increased labor demand due to growth in this industry, which rewards literacy and numeracy skills. Using a difference-in-differences approach, they find that growing up in a village that was within commutable distance of a garment factory increases a woman’s probability of having ever worked outside the home, in any sector, by about 13 percentage points. Furthermore, women who grew up in such villages attained higher education and delayed childbearing, arguably in response to this noticeable labor demand in garment factories for young women who had completed secondary school.

Similarly, liberalization of trade may also impact female LFP. For instance, the government of Brazil reduced the trade protection during the 1987-1994 period. Gaddis and Pieters (2017) explore the relationship between this reform and female LFP in the following years. Exploiting the geographic exogenous variation in exposure to tariff reductions across states due to the trade liberalization and find that tariff reductions were associated with an increase in female labor force participation and employment after two years. The effect is explained by a shift of the economy from agriculture and manufacturing (male-dominated industries) to trade and other services. Kis-Katos et al. (2017) also explore the impact of trade liberalization of female labor outcomes for Indonesia. Using a similar approach—exploiting geographic variation in tariffs—they find that the trade liberalization increased employment and work hours for women. However, they do not find significant results on female labor force participation, suggesting that impacts are driven by work on the intensive margin.

Worker Protection & Firm Incentives

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9 One concern with growth in low-skilled labor demand for women, is that it might draw older girls out of school and into the labor market (Sundaram and Vanneman 2008). However, Afridi et al (2013) actually find the converse in Andhra Pradesh, India, in response to NREGA: their study finds that greater participation of mothers in NREGA compared to fathers is associated with increased schooling of daughters.
Governments implement a variety of policies targeted at establishing equal employment opportunity between men and women. Such policies include paid maternity leave, restrictions to working hours, worker protections making it illegal to terminate a woman’s employment due to pregnancy, and support for better provision of care services. These policies pose an interesting contrast between the potential impact of these policies on women’s incentives to participate in the labor market and firm’s incentives to hire women. They move in opposite directions, thus it is unclear whether in the end the net effect of them on FLFP is positive or negative (i.e. because firms would reduce demand for female labor, and reduced demand has a negative impact on participation).

On one hand, such policies are designed to promote women’s employment—by placing legal barriers to prevent firms from firing women or refusing to hire women due to fertility-related factors such as pregnancy and early maternity care, or allowing women flexibility in working hours to ease their ability to multitask wage work and housework and childcare obligations. Consistent with this, Blau and Kahn (2013) study the relative decline in female labor force participation in the United States compared to other OECD countries between the late 1990s and 2010. They find that over the same time period as the decline, other OECD nations implemented family-friendly policies such as length of parental leave, right to part-time work, equal treatment of part-time workers, and public child care spending as a share of GDP, while the US did not. However, this increase in female labor force participation in other OECD countries might be masking a shift to part-time work or lower-level positions. Literature exploring these issues in developing countries is scarce because such policies are rare to begin with and, moreover, an important proportion of women work in the informal sector (Heath and Jayachandran, 2016).

Conversely, mandating that firms must provide maternity leave increases the costs to a firm for hiring a woman in her childbearing years. As she is at high risk of fertility, the firm would expect to have to pay wages during her maternity leave, without actually receiving the benefits of her labor. Furthermore, there are transaction costs associated with hiring extra temporary labor, or reshuffling work assignments to account for her time on maternity leave. Thus, mandating that a female worker cannot be fired due to pregnancy and mandating paid maternity leave disincentivizes hiring of female workers and leads to a downward shift of the labor demand curve. This could drive down female employment rates and in turn discourage female labor force participation. Comparing women of childbearing age to women past peak fertility in Colombia before and after enactment of legislation which extended maternity leave by two weeks, Bustamante et al (2015) find that the legislation led to a decrease of 0.7 percentage points in female labor force participation among women of childbearing age who have more than a high school education, and a decrease of 0.9 percentage points for women with less than a high school education. However, the study also finds that women of childbearing age are more likely to be self-employed or working in the informal sector after the policy change. Taken together, the results are consistent with a model where formal employers have increased costs in hiring women of childbearing age after the policy change, and women thus shift to self-employment or informal work or dropping out of the labor force altogether.

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10 Paternity leave is not guaranteed in this setting.
Legislation in Taiwan that restricted women’s working hours and mandated employer-provided maternity benefits had more mixed effects. In a study looking at employment (rather than LFPF) Zveglich and Rodgers (2003) exploit variation before and after the law went into effect in 1984, and across sectors where the law did and did not apply (i.e., industry versus services), and find that restricting working hours decreased the employment rate of women, while mandating maternity benefits increased employment rates. The maternity leave result is in the opposite direction as what Bustamante et al. (2015) find in Colombia. This may be explained because women in the service sector were already de factor taking leave (more flexible, there is a reason why they sort themselves into services and away from other sectors). This is consistent with a model where female workers value maternity leave benefits more than the costs in Taiwan, but that the opposite is true in Colombia.

In the United States, Gruber (1994) exploits variation in state and federal laws regarding whether maternity benefits are mandated to be covered by health insurance, to estimate the effects of such a mandate on the labor market. The study finds that employers shifted these costs onto employees, but that employment probabilities did not change. However, the paper does not measure labor force participation directly. In general, the literature is unclear on whether policies aimed to boost LFP by protecting workers are offset by the incentives for firms to not hire workers due to higher costs—in particular because there are not enough studies looking at FLPF (rather than employment).

**POLICY RECOMMENDATIONS & AREAS FOR FURTHER RESEARCH**

This review of drivers of FLFP has pointed out to different barriers that inhibit women from entering and participating in the labor force. In the case of endowments, and specifically time, women’s disproportionate burden of fertility, carework and home production, limit their labor supply. Education, particularly in the form of job training, can boost FLFP. However, women seem to receive disproportionately less training, both from the supply side – firms are less likely to favor women in training – and from the demand side – women may demand less training given financial constraint or lack of information. Financial constraints, in general, affect the ability to start a business or thrive as self-employed. And although the relationship between access to finance and FLFP is still debatable, women are often excluded from the financial market.

In the case of internal constraints, this review has shown how women’s labor force participation may be negatively affected if perception of opportunities is scarce and the work environment is too competitive, given women’s stronger aversion to compete. Other internal constraints that may also hinder FLFP are lower perception of own skills and lack of confidence in the ability to obtain a job, as self-confidence in general is a key driver of labor force participation.

This review also shows that there are external drivers of FLFP. Within this driver, the most relevant is that of social norms. When norms are not inclusive or equalitarian, even economic opportunities and endowments cannot offset them, and FLFP is likely to be lower. Persistence of social biases and gender norms are a barrier to women’s participation in the labor market. Finally, one of the most straightforward drivers of FLFP is labor demand. When labor demand is expanded, women who were not previously working change their perception of accessible labor. If there are programs specifically targeted to them, then FLFP will increase. Similarly, regulation with respect to worker’s protection with a gender scope can help boost FLFP. However, if firms are mandated to establish
regulation that favors women, and this regulation is costlier on them, then they might be disincentivize to hire women and thus imposing an additional barrier for FLFP.

As noted by the international literature, not all these barriers are present or represent a constraint in every context. This section focuses on policy recommendations that lift constraints along the abovementioned drivers. We must highlight that although the aim of these policy recommendations is to increase female labor force participation, this should not be a means on itself. As we have seen throughout the review, boosting FLFP can induce an equilibrium of lower wages, informal work and job segregation for women. These potential outcomes should be considered when designing a policy to increase FLFP. Such policies should be accompanied by interventions that ensure good quality jobs.

While rising female participation rates are good for economic development (Goldin, 1990), the welfare implication for women is less clear. To the extent that women are dropping out of undesirable work due to improved household conditions, they may be better off. Thus, it is important to note the push and pull factors that are at play in each context to understand the welfare implications of FLFP. This is an area that requires further research. Other areas of research and policy recommendations follow.

Understanding the relationships among fertility and female labor force participation are key. As recounted above, the sign and degree of the relationship between fertility and mother’s work behavior is often mediated by the country’s stage of economic development (Aaronson et al 2017). But is never as straight forward as developed – developing countries. While additional evidence is needed to understand the dynamics of the relationship, some policy recommendations can be draw from the existing literature. The evidence has shown that expanding women’s legal access to family planning services can expand their agency and allow for delayed childbearing (when preferred), and boost women’s labor force participation. Beyond fertility services, it is also critical for societies to provide access to high-quality, affordable, accessible care services or technologies that ease the time burden of domestic tasks. This is demonstrated in several rigorous studies, ranging from Brazil to China. Getting the exact details right, such as how to structure prices and whether care facilities should be private, public, or a mix, will depend on the specific context.

Furthermore, while formal care provision is key, support for informal caregivers is also necessary since families will likely continue to provide some unpaid care within the household. There are a variety of different approaches and systems, tax incentives and allowances for care givers and/or recipients (World Bank Group, 2015). The details of each policy are very important in shaping women’s opportunities and constraints. However, depending on who bears the cost of these policies, which are designed to reduce barriers for women of childbearing age, they can have mixed impacts on female labor force participation. Notably, while policies addressing childcare have been relatively well studied, understanding the needs of caregivers for the elderly and other care recipients is an emerging area of research. As populations age globally, investing in more research in this area is recommended. In addition, future research would be useful in better understanding the impacts of the different policies suggested above, and in providing country-specific guidance on how to get the mix right.

Regarding the acquisition of skills, additional research is needed in targeted incentive programs that increase educational attainment, to see if this is an effective lever across contexts, what longer-run
impacts it can have on female labor force participation, and how best to implement these policies. Up until now, evidence of the impact of additional years of schooling on FLFP is not conclusive.

On another hand, acquiring skills through training programs may be able to improve female labor force participation – but the evidence for this is generally mixed and indirect, with much of the success is dependent on the economic context and the exact structure of the program. While there are many studies of training programs, they are quite heterogeneous (notably, in the skills taught, duration of training, and incentives for employers to hire graduates) and show mixed results. Some of the most successful training programs to date (in terms of changing employment rates) have been driven by soft skills training, which focuses on self-esteem, decision-making, and agency, but this has not been true across all contexts. To disentangle the differences in structure and skills and understand the direct impact on FLFP, further analyses of the existing literature and more targeted, systematic research is required.

Promoting women’s financial inclusion is a very important policy tool in improving female labor force participation and other outcomes for women’s empowerment. The gap in women’s access to finance is well-documented, and several policy options aim to tackle it: microcredit, savings products, provision of bank accounts, individual direct deposit wages, psychometric scoring in place of collateral, digital financial products and services, and self-help groups, among others. While some of these policy options, such as psychometric scoring, are relatively new, others, such as microcredit, have a plethora of research exploring their impacts. Studies have shown that accessing self-help groups, microfinance, and microcredit, can improve women’s labor force participation. However, more research studying the direct links between financial inclusion and female labor force participation is needed to inform policies, and some of the specific approaches, such as psychometric scoring as collateral, require additional study.

Exploiting social networks and capital is a way of reducing information asymmetries in the labor markets. The literature does not point to women having a disadvantaged position in terms of acquiring social capital in general. However, not all social ties are the same. On one side, tight connections with family members offer women the possibility of entering the labor force by proving childcare options. Weaker connections, but far reaching, on another side, increase the likelihood of women entering the labor market. This is especially true when connections are with high status individuals. However, as pointed by Puga and Soto (2018), such networks are unequal along the income distribution. Thus, policy that focus on increasing social capital should be mindful of both the type and distribution of these networks.

Lifting internal constraints for labor participation is a less explored policy arena, but there are some positive experiences from which to learn from. Recruitment services, such as those studied in India (Jensen, 2012), can increase women’s perception of availability of opportunities. In turn, higher perception increase women bargaining power within the household, regardless of whether they end up working or not. Instituting less competitive environments in the workplace, given the studied lower aversion to compete of women, might also impact FLFP. However, this might reinforce the gender-specific employment patterns, which would be concerning if these are sectors at the same time more profitable. As explained by Bernhart et al. (2019), policies that support female entrepreneurs to migrate to male-dominated sectors could prevent the gendered sorting.

Regarding social norms, studies indicate that strong female role models matter, so mentorship programs may be useful, but more research on their potential links to FLFP is needed. As seen
above, mobility concerns directly connect to women’s labor decisions, as women cannot travel to work if they are unable to do so by gender norms or safety constraints. Examining potential connections between safe transit and women’s labor force participation and employment is a growing area of research and policy intervention.

Up until now, policy options have been discussed from the supply-side. But of course, women’s labor force participation also depends on demand-side factors. To address informational asymmetries between women and employers, job referral and targeted recruitment of women for new industries has shown to increase labor force participation. Governmental labor policies, such as mandated maternity leave, can also impact female labor force participation. However, as highlighted before, depending on the policy details, the impact may be positive or negative. The empirical evidence on such policies is generally consistent with the expected mixed effects, though more research specifically focusing on female labor force participation is needed.

As explored in this review, development policies can have a myriad of impacts on female labor force participation. Most policies have ambiguous theoretical impacts on female labor supply, and in most cases, the empirical evidence is also mixed. What the literature does tell us, however, is that the impact of policies on female labor force participation depends on how the policies interact with other aspects of the economy. Policies that alter female labor demand can only improve female labor force participation if they address the unique constraints that women face: if women in the population are sufficiently freed from home production, if they have sufficient skills and qualifications to meet the labor demand, if they have access to finance, if they are not constrained by cultural norms, and more. Policies that alter female labor supply can also only affect female labor force participation if firms are willing to hire women and pay them sufficient wages.

Finally, although the focus of this review was on female labor force participation, many of the studies reviewed in this paper focus on employment rate, since that is a more readily accessible measure. However, measuring employment rate or entrepreneurship probability is not enough to provide evidence on improving female labor market outcomes. Future research should take advantage of existing labor force surveys or more nuanced measures of labor force participation in primary data collection to shed light on barriers to female labor force participation specifically.
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