



# Female labour force participation: A summary of IGC research

*Highlights of the IGC's research over the past 10 years*

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Despite substantial increases in female labour force participation across the world in the last century, the global labour force participation for women stands at 49% in 2018, 27 percentage points below that of men. The slower decline in women's participation rate than that of men has slightly narrowed the gender gap since 1990. However the rate of improvement, which has already been slowing since 2009, is expected to halt or even reverse during 2018-2021 (ILO 2018). This is in part due to the growing number of young women in emerging countries that are enrolled in formal education and delaying their entry to the labour market.

The traditional economic rationale for increasing female labour force participation is that it benefits women directly and society indirectly. However, a recent study on the allocation of talent and economic growth (Hsieh et al. 2019) demonstrates how increased female labour force participation will directly boost aggregate economic growth and benefit everyone.

IGC research explores the factors that constrain female labour force participation and how to tackle them in different spaces. In particular, IGC research has focused on barriers that affect the human capital of women and girls, physical and economic freedom (namely transport and financial constraints) of women, as well as the lack of enabling conditions in the workplace. The research also explores how institutionalised norms intersect across these different areas to affect women's productive employment. For more information, please see a recent IGC Growth Brief, [\*Making the workplace work for women.\*](#)

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## 1. Social norms

Social norms are a set of beliefs or perceptions of what one's community holds to be true or acceptable (Ball Cooper and Fletcher 2012). The internalisation of these norms by women that grow up with them, as well as the enforcement of norms that determine appropriate behaviour for women, ultimately restrict their choices and freedoms. For example, social norms around early marriage and childbearing (prevalent in many developing countries), the perception of women primarily as caregivers, or the social stigma attached to married women working, all can restrict women's access and participation in the labour market.

This section focuses on three channels that constrain female labour force participation. Firstly, acting against dominant social norms could have intangible costs to the individuals as they risk external pressure, avoidance, or ostracisation. These costs might affect the labour market decisions of females and ultimately their labour supply. Furthermore, growing up in an environment with certain social norms leads to their internalisation by the individuals. Secondly, social norms might affect labour demand for women and potentially lead to discrimination against women. Lastly, in societies where traditional gender roles are the norm, the decision to participate in the labour force is not necessarily made by women themselves. These decisions are likely influenced by other members of the household and are the result of a bargaining process. These channels might work in conjunction affecting women's labour force participation. IGC research explores the different mechanisms through which social norms affect the women's ability to participate in the labour force, and how these social norms can be changed.

- **Reshaping adolescents' gender attitudes: Evidence from a school-based experiment in India** (Seema Jayachandran, Diva Dhar and Tarun Jain, 2013). Perceptions that a society holds about gender roles affects labour force participation through fewer educational opportunities for girls and women, lack of autonomy over marriage and fertility decisions, and other constraints. IGC research in the Indian state of Haryana attempted to reshape gender attitudes through a school-based programme focused on classroom discussions about gender equality. Through a randomised controlled trial (RCT) in 314 government secondary schools, the researchers evaluated the impact of the programme on students' gender attitudes, aspirations, and behaviours. The results suggest that the intervention not only increased adolescents' support for gender equality, but the participants also reported more gender-equitable behaviour.
- **Women's empowerment in action: Evidence from a randomised controlled trial in Africa** (Oriana Bandiera, Niklas Buehren, Robin Burgess, Markus Goldstein, Selim Gulesci, Imran Rasul and Munshi Sulaiman, 2014). Early marriage and childbearing are common among girls in developing countries, and are key in limiting their human capital accumulation, access to the labour force, and control over their bodies – leading to dependence on men. IGC research in Uganda finds that providing adolescent girls vocational training and information on sex, reproduction, and marriage makes them 4.9 percentage points more likely to engage in income-generating activities. This is almost entirely driven by their greater engagement in self-employment. Teen pregnancy and early entry into marriage/cohabitation also fall significantly, indicating increased economic and social empowerment among adolescent girls.
- **The enigma of malnutrition in India** (Seema Jayachandran and Rohini Pande, 2012). Child malnutrition is pervasive in India – 45% of the children in India are stunted (too short for their age). By limiting a child's health and educational outcomes, child malnutrition can impede economic growth. Surprisingly, rates of child malnutrition in India are about twice those in sub-Saharan Africa despite India's better performance on most other indicators of economic development. This has long puzzled researchers and has been dubbed as "The South Asian enigma". Noting that Indian firstborns are taller than African firstborns, IGC research explored how parental gender preferences affect the likelihood of children being malnourished. The results, published in the [American Economic Review](#) in 2017, suggest that son preference plays an important role in explaining this dynamic. Parents' preference for a healthy male heir influences fertility decisions and how they allocate resources between their children, suggesting strong effects of social norms. This can have critical implications: a girl child without adequate early-life nutrition is unlikely to accrue the human capital required to productively participate in the labour force in the future.
- **Investigating the gender gap in agricultural productivity: Evidence from Uganda** (Daniel Ali, Derick Bowen, Klaus Deininger and Marguerite Duponchel, 2015). Women disproportionately bear the burden of the care economy, which often impacts their ability to join or access the labour market, even with the necessary qualifications. This is due to time poverty. An IGC

study in Uganda investigates the gender gap in agricultural productivity and finds that women's greater childcare responsibilities (the childcare dependency ratio) explain two-fifths of the gender gap. The issue of time poverty among women is an important area for further research, with a considerable knowledge/data gap as time-use surveys are expensive and difficult to implement.

## 2. Human capital

A woman's decision to participate in the labour force is partly determined by factors that affect the wage she can earn, and a primary determinant of market wage is the level and quality of human capital (Winkler 2016). A study on allocation of talent in the US notes that the effect of human capital barriers that exist prior to joining the labour market, can remain with certain groups throughout their life cycle (Hsieh et al. 2019). Investments into addressing these barriers and improving the human capital of women and girls through better education and health interventions have been encouraged and implemented across the world. IGC research has focused on addressing financial barriers, increasing mobility, and women and girl's agency, in order to empower them to make better decisions linked to improving their human capital. IGC research has also looked at how increased human capital may not translate into increased female labour force participation rates, and how aspects of maternity linked to health and time can impact women's ability to participate in the labour force.

### Transportation

In 2006, the government of the Indian state of Bihar introduced the Mukhyamantri Balika Cycle Yojana – an innovative programme that aimed to improve secondary school enrolment by providing girls who continued to secondary school with cash to buy a bicycle. Three IGC studies have assessed the impact of the scheme.

- **Cycling to school: Increasing high school enrollment for girls in Bihar** (Nishith Prakash and Karthik Muralidharan, 2014). This study showed that exposure to the Bihar Cycle Programme increased girls' age-appropriate enrolment by 30% and reduced the gender gap in age-appropriate secondary school enrolment by 40%, mainly by reducing the time and safety cost of school attendance. Compared with other conditional cash transfers programmes, the study demonstrates that the Bicycle Programme was much more cost effective at increasing girls' enrolment. It also suggests that the programme may have generated externalities beyond the cash value of the programme, including improved safety from girls cycling to school in groups, and changes in patriarchal social norms that prohibited female mobility outside the village.
- **Women's empowerment and changing social norms: Persistent effects of a one-time targeted in-kind transfer in India** (Shabana Mitra and Karl Ove Moene, 2017). This study explored the long-term impact of the cycle scheme on social norms in Bihar. The study found that girls who get a bicycle are more likely to complete school and have a 5% higher chance of completing college when compared to girls who did not get bicycles. Access

to education also changed the aspirations of these girls as they were less likely to be working in agriculture, more willing to wait for suitable jobs, and more likely to delay their marriages.

- **Cash transfers versus in-kind transfers: A conceptual framework and preliminary evidence (Maitreesh Ghatak, Chinmaya Kumar and Sandip Mitra, 2013)**. This research found that the bicycle programme has performed well in terms of coverage rate and curtailing direct forms of corruption. However, more than half of beneficiaries preferred to have received bicycles outright rather than cash.

The findings of the IGC studies have been cited by the Bihar Ministry of Education and the Ministry of Social and Family Welfare as evidence of the programme's success. IGC researcher Nishith Prakash has been collaborating with World Bicycle Relief in Chicago, who are now scaling up the bicycle scheme in 100 schools in Zambia. The World Bank is also scaling up this scheme in Mozambique and Mali.

## Negotiation

- **Negotiating a better future: The impact of teaching negotiation skills on girls' health and educational outcomes (Nava Ashraf, Kathleen McGinn and Corinne Low, 2012)**. In Zambia, this IGC study explores whether a behavioural intervention that teaches negotiation skills to secondary school girls can improve their education and health outcomes. IGC researchers hypothesise that negotiation skills can enable a girl to make better decisions that protect her health and education, improve her access to resources, and develop her human capital in the long-run. In close collaboration with the Zambian Ministry of General Education, the pilot RCT tested the value of three different components of youth empowerment programmes: social capital, information provision, and the research team's unique curriculum on negotiation and communication skills. Positive feedback from the participants indicated that the negotiation sessions can increase a girl's sense of control over her life and access to resources more than the information alone. Girls in the negotiation treatment reported less hunger, more control over their future life, indicating they may be less likely to be pressured into situations that put their education and health at risk. As a result of the study, the Zambian government made elements of the Girls Negotiation curriculum part of the national school curriculum (the "Life Skills in Comprehensive Sexuality Education (CSE) Curriculum") in 2015. For almost five years, all students in Zambia in grades five to 11 have received training on how to negotiate effectively, based on the Research Team's curriculum, and estimates put the lower bound of school students who have been "touched" by the programme at over 200,000. The researchers have also made the curriculum freely available for [download](#) to support its integration into other relevant programmes. Currently the researchers are conducting a follow-up study in order to determine whether the improved educational outcomes translate into better labour market outcomes, as well as the impact the negotiation training had on marriage market and fertility outcomes. Close collaboration with the Ministry of General Education continues as the researchers work to improve

the national implementation of the curriculum, and they are currently adapting the curriculum to the university setting.

## Conditional cash transfers

- **Preventing excess female school drop out in Mozambique: Conditional transfers and the respective role of parent and child in schooling decisions** (Damien de Walque and Christine Valente, 2016). IGC researchers carry out an RCT in 173 schools in Manica province, Mozambique, evaluating the effect of providing weekly attendance reports to parents of girls in primary school, and comparing this with the effectiveness of: i) a conditional cash transfer programme offering parents the same information as well as a cash incentive for attendance rates of 90% and above, and ii) providing the same information to parents but giving the cash incentive in the form of a voucher directly to girls to spend on education-related items (such as uniforms and stationary). The study found that the provision of information through the weekly reports increased school attendance and was not statistically significantly different from treatment i) with conditional cash transfers to parents. Incentivising girls with vouchers are also at least as effective as incentivising parents with the cash-equivalent, demonstrating how children have agency in schooling decisions. Where most evaluations of conditional cash transfer programmes to parents find that gains in attendance do not improve test scores, this study finds that the attendance gains from the information and girls' incentives treatments translated into substantial improvements in scores on a mathematics test. The results indicate that part of the effect of conditional cash transfers may come from the information value of the conditional transfer. Therefore, simply providing additional information to parents about their child's attendance and incentivising children directly may increase attendance at a relatively low cost. The findings have been welcomed by stakeholders within the Ministry of Education and Human Development in Mozambique as a low cost solution to addressing female drop out rates in secondary schools.
- **Kanyashree Prakalpa in West Bengal, India: Justification and evaluation** (Arijita Dutta and Anindita Sen, 2017). IGC researchers carried out an evaluation of the government conditional cash transfer scheme known as Kanyashree Prakalpa in West Bengal, which provides scholarships to adolescent girls with the aim of promoting secondary school education among females and to stop the marriage of girls before the official age of 18. The evaluation found that the scheme was "instrumental" in reducing under-age marriage and early dropouts among girls, and also re-shaped and redefined the intra-household bargaining power of girls by providing the transfer directly to them, rather than the household head.

## Education returns in marriage vs. labour markets

- **Women and work in rural India** (Farzana Afridi, Taryn Dinkelman and Kanika Mahajan, 2017). In contrast with global trends, India has witnessed

a decline in women's employment rates over the past few decades. IGC researchers investigated the decline and found it is most concentrated among married, rural women. The study shows that the most important contributing factors in explaining the decline are the increases in women's own education and that of the men in their household. For women with medium levels of education, the results suggest that returns to domestic work are higher than the returns to market work. The rise in household income levels as a result of increased education of men also partly explains the rise in women engaged in domestic work. The researchers have highlighted that in order to improve returns to education in the labour market, policy must focus on creating enabling conditions through flexible working hours and better child support to married women, which has been the focus of dissemination activities.

## Financial barriers and education

- **Estimating the benefit to secondary school in Africa: Experimental evidence from Ghana (Esther Duflo, Michael Kremer and Pascaline Dupas, 2012)**. In close collaboration with the national government, this IGC study examines the impact of secondary education on individual outcomes in the context of Ghana. It also estimates the impacts of lowering the financial barriers to secondary school enrolment among boys and girls. IGC researchers find that girls are less likely to pursue secondary education even when the financial barrier is removed. Only 64% of girls awarded a scholarship were enrolled in school compared to 81% of boys. Part of the lower enrolment rates among girls is explained by whether girls had already been out of school for more than a year, suggesting that the more time that passes between primary and secondary school, the less "enrollable" girls become. Preliminary findings on marriage and fertility outcomes indicate that the scholarship programme can reduce early marriage and early pregnancy. The researchers have conducted non-IGC funded follow up studies to further explore these outcomes in more detail.

## Maternal health

- **Programme delivery effectiveness and health outcomes of maternal cash transfer programme (Erica Field, Elisa Maffioli and Alexander Fertig, 2018)**. In December 2014, the Government of Myanmar, as part of its National Social Protection Strategy, committed to a universal maternity cash transfer (MCT) programme for pregnant women and their children under age two. This IGC project, in partnership with Save the Children International (SCI), sought to assess implementation design options for the delivery of a maternal cash transfer programme and advise the Government of Myanmar on the most appropriate model to be extended at scale. The cash transfer programme set up by the team and SCI has two features: 1) it provides monthly cash transfers to pregnant women in the region, and 2) supplements these cash transfers with Behavioural Change Communication (BCC) on various nutrition and health seeking topics. The findings suggest little evidence of change in maternal health seeking behaviours, but see improved maternal dietary

diversity and child complementary feeding practices. In terms of cash usage, the midline data shows that the overwhelming majority of enrollees continue to receive monthly cash transfers in full, and that nearly all of these women are the primary decision makers on spending decisions. In some health seeking behaviour indicators (most notably delivery care), the researchers observe a significantly lower proportion of women in treatment villages who have had to borrow money in order to pay for health care. This suggests that cash transfers are being used to pay for critical health care needs, and are helping to reduce indebtedness among the target population.

- **Maternal mortality risk and gender gap in desired fertility (Nava Ashraf, Alessandra Voena and Erica Field, 2017)**. In this project, researchers worked in close collaboration with Zambia's Ministry of Health and local NGOs to evaluate the impact of providing information to men and women about maternal mortality risk on knowledge of risk, demand for family planning, and maternal and child health outcomes. Midline data indicates that when the husband is treated (receives information on maternal mortality and morbidity), they are more likely to update their knowledge on maternal health, and increase their communication and interaction with their spouse. The analysis also finds that wives of treated husbands are also less likely to be pregnant, or to have given birth after the intervention, also emphasising potential spillovers of the programme.
- **Income expectations and child health: Evidence from a maternity support programme in India (Anjini Kochar and Prabhat Prasad Ghosh, 2017)**. The Indira Gandhi Matritva Sahyog Yojana (IGMSY) is a conditional cash transfer (CCT) in India, aimed at expectant mothers in the informal sector. It seeks to provide the income to enable a reduction in work hours in late pregnancy and immediately following delivery for up to six months. This IGC study explores the effect of IGMSY on maternal hours of work and the causal effect of hours of work on maternal and child health. It tests whether increased utilisation of public programmes like IGMSY improve maternal and child health by extending rest hours and the breastfeeding period while also increasing weight gain and attention to the infant. Despite extensive delays of up to a year or more in the receipt of payments from the programme, the researchers' empirical analysis found that the programme had significant benefits to the target child. After investigating why this was the case despite poor implementation, the study found that the programme significantly increased the interval between the first and the second birth, which they suggest to be an effect of expected income support on birth intervals. Utilising eligibility as an instrument for birth intervals, we show that increases in the interval between the first and second child significantly improved the health of the first child, and suggests how dynamic fertility decisions, such as birth spacing, are important means of influencing child health.
- **Improving the management of the health system in Mozambique (Sandra Sequeira, Margaret McConnell and Maria Steenland, 2019)** Antenatal care is a critical building block for maternal and new-born health care. Access to affordable, high quality antenatal care (ANC) offers the opportunity to inform women about potential danger signs to look for during their pregnancy, identify and treat illnesses, and promote healthy nutrition and breastfeeding. With improvements to coverage in ANC, an estimated 160,000 new-born



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lives could be saved each year. Yet women still face significant barriers to consistent attendance of ANC, particularly in low-income countries. This IGC study in Mozambique, requested by the Minister of Health, aimed to enhance the quality and impact of ANC in Mozambique by improving the management of health care clinics through the introduction of a system to schedule appointments for antenatal care visits. The challenge of waiting in long queues to access ANC, potentially all day without guarantees of being seen, can deter health centre visits and explains poor quality and low rates of completion of the recommended ANC schedule. The project found that scheduling appointments reduced waiting times for ANC in treatment facilities by 100 minutes compared to the baseline. Following her visits to several health clinics, widely covered in the national media, the Minister of Health has now approved the plan for expansion of the scheduling system at the national level. This covers the implementation of the scheduling system to maternal services in both Central and Northern Mozambique, with technical support from the IGC.

### 3. Physical and financial freedom

Despite investing in and cultivating their human capital, women can find their access to the labour market restricted by their lack of physical and economic freedom. World Bank’s analysis of 189 economies suggests that 104 economies still have laws preventing women from working in specific jobs, 59 economies have no laws on sexual harassment in the workplace, and in 18 economies, husbands can legally prevent their wives from working (Iqbal 2018). Some estimates suggest that the economic costs to global economy of discriminatory social institutions and violence against women is about \$12 trillion annually

(Woetzel et al. 2015). IGC research exploring this side of labour market access focuses on how safety concerns can restrict both the physical and economic mobility of women, and how constraints around access to credit can curb entrepreneurship.

■ **Overcoming barriers to women’s mobility in Pakistan (Kate Vyborny, Fizzah Sajjid, Ghulam Abbas Anjum and Erica Field, 2017)**. Women in Pakistan are much more dependant on public transport than men, yet they face significant challenges while using public transport due to concerns over their safety, instances of harassment, and worries about their social reputation. In a survey of 1,000 households across Lahore conducted by the Centre for Economic Research in Pakistan (CERP), 70% of male family members said they would discourage female family members from taking public wagon services. Women also feel unsafe getting to bus stops and waiting at them. A cluster of IGC research in Pakistan, conducted in partnership with the government transport agency Lahore Transport Company, tested the effect of women-only urban public transport links on labour market outcomes. They find that women-only services (in Lahore, three Pink Bus routes) benefit their users substantially. However, pink buses only serve a small number of women due to their very limited geographic coverage and restricted timings, and many women in Lahore lack access to a bus with a women’s-only compartment. The findings also indicate that a substantial number of women in the sample were interested in taking up employment, but were not working at the time. The study estimates that this would be enough to more than double Lahore’s female labour force participation rate, and the women who are interested in working say that a pick-and-drop service would make a substantial impact on their decision to take a job. The research team has worked closely with the Punjab Commission on the Status of Women (PCSW), which is a government agency focused on the advancement of women in the Punjab. The research team have signed an official agreement with PCSW to establish and pilot an Employment Facilitation Hub. This will support women’s access to the labour market through a number of different labour market interventions focused on both supply- and demand-side information frictions (see on-going research section below).

■ **Vocational training programmes in India are leaving women behind, but this need not be the case (Charity Moore, Rohini Pande and Soledad Prillaman, 2018)**. Using survey data collected from former trainees across seven major Indian states, this IGC study evaluates the ‘Skill India’ initiative. This initiative initially set out in 2014 to train 500 million youths by 2022, with a particular focus on recruiting and training a large rural labour force for mostly urban jobs. The study found that the initiative’s focus on urban migration limited the involvement of women – female trainees are less likely to both receive job offers and accept those offers after skilling than men, and they are even less likely to accept jobs that require migration. The biggest reasons women reported dropping out of the labour force revolve around family-related challenges and difficulty migrating. Men, on the other hand, report challenges related to low pay and unfavourable working conditions. In contrast, looking at state-by-state results, women in Odisha are more likely than men to be placed in jobs for at least three months, and 55% of female trainees were placed in jobs for three months or longer. Crucially,

most of Odisha's female trainees migrated for their jobs. This supports the recommendations put forward in this study for better migration support for women such as assistance in finding accommodation or opening a bank account. Better migration support is found to be associated with women remaining in their jobs for longer.

- **Does women's banking matter for women? Evidence from India (Rohini Pande and Erica Field, 2016)** Microfinance has the potential to increase the participation of women in the labour force. Yet, short-term experimental evaluations of microfinance have not found significant economic benefits for women. IGC research in Ahmedabad, in collaboration with India's oldest financial institution for women – the Self-Employed Women's Association (SEWA) Bank, tests the long-term impact of greater access to microfinance on female labour force participation, with particular focus on fertility as an understudied aspect of female autonomy. The results show that providing microfinance to women helps integrate them into the workforce in the long-run. This is through supporting greater participation in household business activities. An increase in female labour force participation is also accompanied by an increment in the share of household income produced by women. The increased labour force participation and greater access to microfinance is also linked to reducing fertility in the long-run.
- **Friendship at work: Can peer effects catalyse female entrepreneurship? (Erica Field, Seema Jayachandran, Rohini Pande and Natalia Rigol, 2015)**. In a similar study conducted with SEWA, researchers test how two days of business training offered to a random sample of SEWA customers can affect female entrepreneurship. The intervention had a significant immediate impact on participants' business activities, but only if they were trained in the presence of a friend. Four months later, those trained with a friend were more likely to have taken out business loans, less likely to be housewives, and reported increased business activity and higher household income. The positive impacts of training with a friend were stronger among women from religious or caste groups with social norms that restrict female mobility.
- **Basic entrepreneurship: A big new idea in development (Orianna Bandiera, Robin Burgess, Narayan Das, Imran Rasul, Selim Gulesci, 2014)**. The world's poorest people lack both capital and skills, and tend to engage in low-skilled wage labour activities that are insecure and seasonal in nature. Any attempt to alleviate extreme poverty on a large scale must therefore involve thinking about occupational change and how this process is linked to a lack of capital and skills. To answer these questions, the IGC partnered with the NGO BRAC to implement a large-scale and long-term randomised control trial to evaluate BRAC's targeted ultra-poor programme in rural Bangladesh. The programme focusses on women and has two aims: to help these women shift or 'graduate' from being ultra-poor to having the basic skills, income, and confidence to begin fending for themselves; and to help them have enough stability to gain access to the mainstream development programmes, such as microfinance. The study found that providing dual transfers of assets and skills can unlock the productive potential of the ultra-poor and enable the poorest women to shift out of agricultural labour and into running small businesses. Four years after enrolment in the programme, the women have achieved an average of a 38% increase in income.

## 4. Enabling condition in the workplace

The lack of enabling conditions in the workplace can make it difficult for women to participate in the labour market, even in cases where they possess the required education and skills. IGC research has focused on how poor management practices and a weak rule of law can affect female labour force participation.

- **Gender empowerment and productivity in the garment sector (Chris Woodruff, Rocco Macchiavello, Andreas Menzel and Farria Naeem, 2015)**. In Bangladesh, garment production accounts for 80% of Bangladesh's exports and 13% of its GDP. Within the garment sector, on average, women make up 80% of workers on the sewing floor, yet 95% of managers and supervisors are men. IGC researchers piloted a study that worked with local training companies to provide management training to groups of men and women in 60 readymade garment factories and tracked their progression and performance. The findings suggested that the female trainees were as or more effective managers than the male trainees, but promotion rates for the female trainees were significantly lower (55%) than for male trainees (85%). The study led to two further rounds of research conducted by the team funded by the International Finance Corporation (IFC). This has now led to the funding of a larger scale initiative led by the International Labour Organisation (ILO) and the IFC, which is designed to support career opportunities for women working in the readymade garment sector, with a focus on job quality. Two firms participating in the intervention also voluntarily absorbed the training programme after the intervention as part of their standard management practices. Building on this cluster, a new IGC-funded project is currently being undertaken, which seeks to understand the effect of female supervisors on career aspirations, stress levels, and communication with female and male operators, and how these issues affect worker retention.
- **Is the rule of law good for women? Evidence from micro-entrepreneurs in Lusaka, Zambia? (Nava Ashraf, Edward Glaeser and Alexia Delfino, 2019)**. Entrepreneurship tends to be a male-dominated activity and when female-led businesses do exist, they are typically smaller and less profitable. An IGC study based in Lusaka looks at how female entrepreneurs may avoid dealing with men in business for fear of expropriation of violence, and whether improving enforcement of the rule of law can open opportunities for economic growth. IGC researchers build on previous IGC work that collected a spatial distribution of all businesses in Lusaka, and showed that proximity to important legal or quasi-legal institutions is associated with a reduced or eliminated gender gap. The project's emphasis on the lack of trust as a key inhibitor to female entrepreneurship, rather than the usual explanations of a lack of skills or education, was particularly well received by government stakeholders. The research team are currently exploring further work in this area with legal institutions in Lusaka.

## 5. On-going research

- **Constraints to female entrepreneurship in Pakistan: The role of women's goals and aspirations** (Farah Said, Giovanna D'Adda, Mahreen Mahmud and Diego Ubfal). Evidence on the impact of microfinance loans on business outcomes shows moderately positive, but not transformational effects, especially for women. This IGC study tests two potential explanations for the poor uptake of microfinance loans and their inability to boost female entrepreneurship in Pakistan: 1) the lack of successful female role models and support networks hamper women's aspirations and discourage them from even trying, 2) women may encounter obstacles they are unprepared for and cannot overcome with motivation alone. Pakistan represents an interesting setting for the project, given the low levels of female labour force participation (22%) primarily due to lack of social acceptability of female economic activities conducted outside the household. Results are expected in September 2019.
- **Firm growth and information frictions in the market for skills** (Kate Vyborny, Erica Marie Field and Robert Garlick). Building on their existing cluster of work, this project looks to pilot a series of interventions to alleviate supply- and demand-side information frictions in the labour market in Lahore. The project will use an innovative job-matching platform that has been created in collaboration with the Punjab Commission on the Status of Women. The researchers will use this platform to randomly vary the information available to firms about jobseekers' skills and to jobseekers about firm demand for skills. This will help to identify 1) the effects of better information on the quality of individual firm-worker matches; 2) how human capital investment decisions are made in the presence of information frictions about firm demand for specific skills and qualifications. The project will also create and observe high-frequency labour market data in a way that existing research has not, as the job posting and searching will take place on their job platform.
- **Child marriage in Bihar: The role of insecurity and migration** (Anindita Sen and Arijita Dutta). This IGC Gates project looks at the cost of child marriage and the reasons behind it in the state of Bihar. It takes a closer look at socio-economic factors such as religion, caste, income, migration, and remittance, as well as security and the concept of 'honour' to understand how they contribute to child marriage. It also analyses the effect of two conditional cash transfer schemes launched by the government that aimed to promote education and delay child marriage.
- **Child marriage and police capacity** (Tanushree Goyal and Sam van Noort). This project explores the relationship between child marriage and police capacity, and seeks to establish whether a lack of police capacity indeed causes child marriage in India.
- **Social norms and firm productivity** (Noam Yuchtman, Oren Reshef, Laura Boudreau and Sakid Ifetkher Mahmood). In a setting where social hierarchy is prominent, 'high status' individuals may be unwilling to receive information from 'low-status individuals'. For example, men may be unwilling to be managed or instructed by women because they consider such interactions

disrespectful and outside the status quo. In this study, IGC researchers casually identify the role that social structure plays in shaping information flows within factories in Bangladesh, particularly in sharing and receiving productivity-enhancing information, and the extent to which social hierarchy is costly to a firm.

## 6. Way forward

Significant progress has been made in understanding the barriers to female labour force participation and there are several potential avenues for future research. Whilst there is a growing body of research that looks at the role of social norms, there are opportunities to delve deeper into how these norms become institutionalised, and how state institutions play a role in perpetuating certain norms – particularly child marriage. There is a need for a better understanding of the labour supply decision-making process of women, including the intra-household interactions that affect it. While we know that certain social norms impose constraints on female labour force participation, the root cause of stigma associated with women participating in the labour force is less well understood. Perceptions of male family members (father, brother or husband in particular) about women doing jobs outside the home affects the labour supply decisions of women. How these perceptions arise, evolve and can be changed is an important area for future research. Existing research suggests that social norms are malleable and can change over time. How the changes in social norms, especially the ones restricting female labour force participation, come about, is still an open question. Study of social networks, especially how information spreads, is important in this regard. In addition to building the body of research on discriminatory hiring practices, industrial segregation, and occupational segregation, more can be done to advance the literature on the constraints women face once they start participating in the workforce, such as wage discrimination and sexual harassment. A deeper look into how firm productivity is influenced by cultural norms and social hierarchy, and the barriers to growth faced by women entrepreneurs, can also shed light on obstacles to female labour force participation.

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