

## Patterns and trends in female labor force participation since 1992

FLFP in Pakistan doubled between 1992 and 2014. The gender gap is also diminishing. Yet, FLFP remains low, particularly in urban areas, while it is rural unpaid work that has grown. ${ }^{1}$ Overall, only half of Pakistan's population is in the labor force (53.4 percent), as reported by the 2015 Labor Force Survey (LFS). ${ }^{2}$ This represents a small increase from 1992, when labor force participation (LFP) was 48.6 percent. Between 1992 and 2014, men's LFP remained unchanged, albeit at a high level of over 82 percent. Women's LFP rate doubled from 13.3 percent in

[^0]1992 to 25 percent in 2014 but was fueled mostly by unpaid work in rural areas (Figure 1). Yet, according

FIGURE 1: TRENDS IN LABOR FORCE PARTICIPATION SINCE 1992


[^1]to data from ILOSTAT, ${ }^{3}$ Pakistan's female labor force participation remains one of the lowest, not just in South Asia, but also globally.

Urban female labor force participation in Pakistan is particularly low and has risen little over the last two and a half decades. While rural FLFP doubled from 16 percent to 32.9 percent over this period, urban FLFP rose only from about 7 percent to 11 percent. Even after taking into account a range of factors that influence FLFP in multivariate analysis, urban residence is still significantly associated with lower FLFP. Moreover, it has been a significant factor since at least 1999, with its effect increasing over time: in 1999, urban women were 11 percent less likely to be in the labor force than rural women but by 2014 urban women were 21 percent less likely than rural women to be in the labor force (Appendix 1). While urban men also are less likely to be in the labor force than are rural men, this effect is not as large as it is for women and has not increased over time.

Still, there is little doubt that FLFP follows a rising trajectory. Compared to cohorts born in the past, cohorts today have higher levels of labor force participation. ${ }^{4}$ An analysis of women's labor force participation at different ages across a period of four decades shows that, for any age, women born more recently have higher levels of labor force participation than did women of their age in prior cohorts. For instance, about 15 percent of 30-year old women who were born in 1970 were in the labor force (Figure 2). In contrast, 25 percent of 30-year old women who were born in 1980 were in the labor force. Such cohort changes suggest that conditions of employment, norms and attitudes, and women's opportunities related to labor force participation are more favorable for women today than was the case for similarly-aged women born longer ago.

FLFP has also been steadily rising among all age groups over time, in both urban and rural areas. Young people, particularly between the ages of 2024 years, have seen some of the largest LFP increase between 1999 and 2015. However, at all ages, urban

FIGURE 2: FLFP BY BIRTH COHORT


Source: Authors' analysis of multiple Labor Force Surveys

4 This study uses a partial cohort analysis as the LFS data available for this study, as well as the length of time between survey years, are unevenly clustered over the period of analysis (19922014).

FIGURE 3: TRENDS IN FLFP BY AGE GROUP AND RESIDENCE


Source: Authors' analysis of multiple Labor Force Surveys
women are less likely to be in the labor force than are rural women (Figure 3).

Between 1999 and 2014, the largest increases in LFP occurred only after post-secondary education, for both men and women. In the 15-year period between 1999 and 2014, women's labor force participation rose for all levels of education, but most significantly after post-secondary education. However, multivariate analysis suggests that the magnitude of the relationship of post-secondary education to LFP appears to be diminishing for women: in 1999, women with post-secondary schooling were 22 percent more likely to be in the labor force than women with no formal schooling, while by 2014 they were only 13 percent more likely. In contrast, over time the beneficial effect of schooling for men's labor force participation has increased at all levels of schooling (Appendix 1).

Post secondary education has a stronger positive effect on urban women's LFP than for rural women; yet, at all education levels rural women are more likely to be in the labor force than are urban women. Urban women with post-secondary education are three times more likely to participate in the labor force than urban women with primary education only. In contrast, highly educated rural women are less than twice as likely as rural women with primary education alone to be in the labor force. Still, at all ed-

FIGURE 4: FLFP BY EDUCATION AND RESIDENCE


Source: Authors' analysis of multiple Labor Force Surveys
ucation levels, larger proportions of rural than urban women are in the labor force (Figure 4).

The gender gap in FLFP rates has decreased in Balochistan, Khyber Pakhtunkwa (KP), Punjab and Sindh provinces, with some variation across province. Punjab has had higher levels of FLFP than Sindh, KP and Balochistan since at least 1992. In fact, even after controlling for factors such as urban-rural residence, education and household characteristics, women in Sindh, KP and Balochistan are significantly less likely to be in the labor force than are women in Punjab. In contrast, provincial differences are smaller for men (Appendix 1). Punjab has also had the smallest gender gap ${ }^{5}$ in FLFP in all time periods, in both urban and rural areas. By 2014, Sindh had the largest gender gaps overall and in urban areas, and KP had the largest gender gaps in rural areas. Balochistan had the largest shifts, going from having the worst overall gender gap to the second lowest among all provinces, behind only Punjab. ${ }^{6}$ KP made the largest strides in lowering the urban LFP gender gap such

[^2]FIGURE 5: GENDER GAPS IN LFP BY PROVINCE OVER TIME AND RESIDENCE


Source: Authors' analysis of multiple Labor Force Surveys
that the urban gender gap in KP more than halved between 1992 and 2014 (Figure 5). This shift in urban LFP is likely due to province-specific factors, for example, the natural disasters and security crises that have prompted migration from rural to urban areas. ${ }^{7}$ Additionally, these crises brought increased attention of humanitarian agencies and government to women, leading possibly to greater access to education and economic opportunities that, in turn, facilitated higher urban labor force participation for women in KP. ${ }^{8}$

## Barriers to female labor force participation

Data and analysis are limited on barriers to women's labor force participation, and - even more so - on the constraints that women face, once employed, in being able to work effectively and to advance in their jobs. Here we deepen the understanding on some of the barriers to FLFP to the extent allowed by existing surveys, viz., the LFS, LSS and Enterprise Survey.

[^3]
## Normative Barriers: Marriage, Mobility, Safety and Attitudes towards FLFP

Marriage appears to be increasingly associated with lower levels of FLFP. Multivariate analysis of Labor Force Surveys over time suggests that being married is increasingly associated with women's labor force participation, even after the effect of other related factors such as education or urban-rural and provincial residence is considered. While marriage was not significantly associated with FLFP in 1999, in both 2005 and 2014 married women were 7 percent less likely to be in the labor force than were unmarried women. On the other hand, across all three years of measurement, married men were 8 -to- 10 percent more likely to be in the labor force than unmarried men (Appendix 1), perhaps because of pressure to provide for a growing family. For women, marriage may bring constraints such as the increased responsibilities for childcare and housework, as well as increased constraints on mobility and ability to make independent decisions.

## MARRIAGE CAN INHIBIT FLFP

In both 2005 and 2014 married women were

less likely to be in the labor force than were unmarried women

## Women are


more likely to participate in the labor force if men in the household agree that married women should be allowed to work outside the home.

Limited mobility is also associated with women's ability to participate in the labor force. A significant proportion of women respondents in the 2013 Labor Skills Survey (LSS) reported that they could not travel alone for basic services, social reasons, or to the local market. For example, only about 30 percent of women could go to local markets or to a local health facility alone. About one-fifth of women reportedly never go to the local market, while 13 percent say they never go to local health facilities. This lack of mobility for women constrains their flexibility to travel to work and conduct business, thus affecting their labor force participation. Women with greater mobility, at least in terms of being able to go to local markets alone or accompanied, tend to be more likely to be in the labor force. Thus, 17 percent of women who could travel to local markets alone are in the labor force compared to 9 percent of women who reported they could never go to the market. Multivariate analysis of the LSS confirms this pattern: women allowed to go to local markets alone and unaccompanied were 3 percent more

## LIMITED MOBILITY CONSTRAINS LABOR FORCE PARTICIPATION

## Only about <br> 30\%


of women can go alone to local markets and/or to local health facilities

## WOMEN WITH GREATER MOBILITY ARE MORE LIKELY TO BE IN THE LABOR FORCE


likely to be in the labor force, even after controlling for a range of other factors (Appendix 2).

## Safety concerns dampen women's economic activ-

 ities. Closely related to mobility is the perception of safety when one is outside. Less than half the women in the 2013 LSS reported that they feel safe walking around in their neighborhood, whether during the day or at any other time. This perception seems to matter when it comes to labor force participation: women who feel safe walking alone outside in their communities or neighborhoods are more likely to work (17 percent) than those who do not feel safe (11 percent). The relationship is also confirmed by regression analysis, which shows that women who feel safe walking alone in their community at least during the day are significantly more likely (3 percent) to be in the labor force than women who do not feel safe, even after controlling for characteristics of women and their households (Appendix 2). Both safety concerns and lack of mobility also partially explain why women in Pakistan are disproportionately engaged in homebased work.
## WOMEN'S PERCEPTION OF SAFETY INFLUENCES THEIR LABOR FORCE PARTICIPATION

## MOSTWOMEN DO NOT FEEL SAFE OUTSIDE THE HOME

In 2013,
Less than half of surveyed women reported that they feel safe walking around in their neighborhood, whether during the day or
 at any other time

of those who do not feel safe

FIGURE 6: ATTITUDES TOWARDS WOMEN WORKING OUTSIDE THE HOUSE


Source: Authors' analysis of the Labor Skills Survey 2013
Attitudes towards women working outside of the home seem to be somewhat favorable, though more so among women than men. More than half of all urban and rural men and about 70 percent of women who participated in the 2013 LSS agreed that married women who want to work outside the home should be allowed to do so. Urban women were the most supportive of this statement of all surveyed groups. Also, 66.5 percent of men agreed that if a wife works outside the home the husband should help with the housework. At the same time, men are less likely than women to agree with both statements, especially regarding women working outside the home (Figure 6).

Yet, it appears that while men's support for women's employment is an enabling factor for female labor force participation, women's own opinions on the matter do not make a significant difference. Regression analysis using the LSS shows that women are 5 percent more likely to participate in the labor force if men in their household agree with the statement "a married woman should be allowed to work outside the home if she wants to". This relationship is also robust across different model specifications. On the other hand, we do not observe a significant relationship between women's opinion on this statement and their own labor force participation (Appendix 2).

## Household Constraints: The Burden of Housework and Childcare

A range of housework and childcare responsibil-
ities inhibit women's ability to work outside the home, even in urban areas. Most men work outside the home and the primary reason for men not to be in the labor force is because they are students. This pattern is little changed since 1999. In contrast, the majority of women who are not in the labor force attribute their absence to housework. This pattern too has hardly changed, declining only from 89 percent in 1999 to 83 percent of women who do not work in 2014 citing housework as the main reason. Even among women who work, the Jobs Diagnostic shows that over 61 per cent of women in urban and 45 per cent in rural areas work from their dwelling, likely because of the continued pressure of household and reproductive tasks. While affording them flexibility in terms of hours, working from home limits the type of jobs women can take and thus negatively impacts their upward mobility and income.

# HOUSEWORK AND CHILDCARE RESPONSIBILTIES OFTEN PREVENT WOMEN FROM WORKING OUTSIDE THE HOME 


of women who do not work outside the home cite housework as a reason

work from home, limiting upward mobility

FIGURE 7: REASONS FOR NOT WORKING ACROSS THE LIFE CYCLE (WOMEN)


Source: Authors' analysis of multiple Labor Force Surveys

While men's reasons for not working change across the life cycle, women not in the labor force simply transition from school to housework. For men not in the labor force, the reasons change by life stage. For example, in the 2015 LFS, for men in their teens and 20 s the primary reason for not being in the labor force is schooling. About one-quarter of men between the ages of 30 and 40 years report that they are not in the labor force because of housework responsibilities. Beyond age 40, by and large men outside of the labor force and not students are either disabled or retired. In contrast, until about age 20 most women outside the labor force are students. Between 20-24 years of age, still about 11 percent of such women are students while 86 percent are housewives. After age 25, almost all women not in the labor force are reportedly housewives (Figures 7 and 8).

There does appear to be some generational change, with housework reportedly less of a constraint to joining the labor force among young women in 2014 compared to 1999. Urban-rural patterns differ, however. Among young women between the ages of 15 and 24 outside of the labor force, the importance of housework as the main constraint shows some - albeit slow - decline between 1999 and 2014, while the role of education as the main reason for not being in the labor force is rising. In 1999 a little over one-third of urban young women outside the labor force gave education as their constraint and about $60 \%$ reported housework. By 2014, these two reasons were closer to being more equally reported as con-

FIGURE 8: REASONS FOR NOT WORKING ACROSS THE LIFE CYCLE (MEN)


Source: Authors' analysis of multiple Labor Force Surveys
straints. In rural areas, the proportion reporting education as a reason for not working tripled between 1999 and 2014. Still, even in 2014 housework constrains a large three-quarters of young rural women from joining the labor force (Figure 9).

FIGURE 9: REASONS FOR NOT WORKING ACROSS THE LIFE CYCLE (WOMEN AGED 15-24) ${ }^{9}$


Source: Authors' analysis of multiple Labor Force Surveys

[^4]Human Capital and Economic Barriers: Education, Occupation, Firm Preferences and Workplace Laws

More than half of all Pakistani women have not attended school. Only a tiny minority has had access to higher education. This scenario means a shaky foundation on which to build skills and training for high-quality employment, and low returns for working women. Over the last two and a half decades the proportion of women with no education has declined from over three-quarters of all women (77 percent) to slightly more than half of all working age women - still a high proportion of uneducated. The percent of men with no formal education has declined from about 47 percent in 1992 to just over 25 percent of men in 2014. The gender gap in education, however, has not improved over this period. Further, while few men have post-secondary education, this proportion is even smaller for women: the proportion of women with post-secondary schooling in 2014 was roughly equivalent to men's post-secondary schooling in 1999. In urban areas, even by 2014, about onethird of all women surveyed in the LFS had no formal education and only 10 percent had post-secondary schooling. Moreover, as seen in the Jobs Diagnostic, skills training that could potentially complement a weak formal education system typically follows traditional gendered patterns and is less diversified for women than men, further limiting women's opportunities in the job market.

## LIMITED HUMAN CAPITAL CONSTRAINS WOMEN'S LABOR FORCE PARTICIPATION

In 2014 about
 and only
10\%
had post-secondary schooling


Regardless of education level women have fewer, and less diversified, occupational choices than men. Over 50 per cent of women are engaged in unpaid work, primarily driven by the over-concentration in agriculture, according to the Jobs Diagnostic. Additional analysis of the LFS for this Note further shows that it takes several years of schooling to enable women to move out of low-skilled and unpaid occupations. In fact, women are concentrated in low skilled sectors through secondary levels of education. It is only at post-secondary education levels that we see a shift of women into the professional sector, from about 17 percent of employed women with a secondary education reportedly working in professional occupations to 82 percent of employed women with post-secondary schooling. However, options other than either low-level (primarily agriculture-related) work or high-level professional work are sorely lacking for women. This is in sharp contrast to men, who enjoy several middle-skilled positions across all levels of education, such as machine operation, clerks, marketing and services.

## EVEN WHEN IN THE LABOR FORCE, WOMEN FACE LIMITED OCCUPATIONAL DIVERSITY



Women with primary education cluster in low level agriculture related work

while those with post-secondary schooling are in high-level professional work
but women have limited diversity of occupations in the middle levels of educational attainment

## OCCUPATIONAL PROFILES VARY BY SEX

The top five categories of occupations make up

of employment for urban women whereas there is more diversity for urban men


Women are doing "feminine" jobs such as domestic work or in textiles and apparel

whereas men are
doing "masculine" jobs
in construction and
services

In urban areas the top five categories of occupations make up two-thirds or more of the share of employment for women, whereas there is more diversity for men. In rural areas, this difference is more muted. Occupation profiles across the board vary distinctly by sex. Urban men are more likely to be engaged in trades such as construction and services (shopkeepers) whereas urban women are engaged in traditionally 'feminine' jobs such as domestic help or in apparel and textiles. At higher levels of education, the education sector features as the largest employer for urban women whereas urban men work across a varied number of service-oriented jobs such as shop-keeping, accounting and clerks in addition to education. There is limited representation of urban women in services and retail. Yet, the top five occupations even for urban men with post-secondary schooling are still middle-range, non-white collar occupations. In rural areas occupational choice is limited for both men and women regardless of education level. At the same time, the limitations seem to be larger for women than for men in rural areas also. The top five rural occupations comprise three-quarters or more of women's employment regardless of education level, compared to half to two-thirds of men's employment (Appendix 3).

Firms themselves express a preference for not hiring women. About two-thirds of firms surveyed in Pakistan's Enterprise Survey in 2013 agree with gen-der-discriminatory attitudes as reasons for not hiring women in managerial or non-managerial capacities. More than one-third of the surveyed firms report that
they find it difficult to hire women because of women's family responsibilities. Almost one-third of the surveyed firms believe that having women employees 'disrupts' the workplace, possibly because male colleagues and customers are hesitant to interact with women. An equivalent proportion deem that benefits and expenses on separate workplace facilities make women more expensive employees. Finally, slightly less than one-third of the surveyed firms reportedly consider it difficult to hire women because of government regulations on working hours for women and maternity leave (Figure 10).

FIGURE 10: GENDER BIASED REASONS FOR NOT HIRING WOMEN


[^5]
# STRUCTURAL BARRIERS THAT CONSTRAIN WOMEN'S LABOR FORCE PARTICIPATION 


of firms surveyed agree with gender-discriminatory attitudes as reasons for not hiring women in managerial or non-managerial capacities

A minority of women are aware of workplace laws on entitlements that might attenuate the conflict between household and work responsibilities and ease constraints on working outside the home. Both men and women of working age - whether currently employed or not - are more likely to be aware

FIGURE 11: AWARENESS OF LEGAL WORKPLACE BENEFITS BY SEX


[^6]
## WOMEN'S AWARENESS OF WORKPLACE LAWS

Only about

of women are aware of maternity leave, and even smaller numbers are aware of other laws that could help ease constraints on working outside the home, such as a 48-hour work week
of benefits such as sick leave and annual leave compared to other benefits. LSS 2015 reveals that 35-45 percent of women are aware of maternity, annual and sick leave, but very few are aware of other laws that could help ease constraints on working outside the home, such as a 48 -hour work week (Figure 11). Even in urban areas, more than 40 percent of women surveyed are unaware of any workplace laws. Without such awareness, working outside the home may be an even more daunting and burdensome possibility for women who still have to shoulder the responsibility of all household work while maintaining a job outside the home of the home. At the same time, these laws apply primarily to the formal sector, in which female participation is very low. Thus, even growing awareness among women can only contribute to increasing FLFP if these regulations are applied more broadly and if firms comply with the regulations.

## Gaps in data on female labor force participation

Despite the large number of surveys conducted on FLFP and the knowledge generated thereby on trends, patterns, and barriers, several aspects of FLFP remain unknown. In particular, more accurate measures of women's work and a deeper understanding of the dynamics of individual, household, firm and structural barriers are still lacking.

Existing surveys typically underestimate women's work, and more experimentation is needed to improve ways to measure all of women's economic
contributions inside and outside the home. The total amount of women's work, such as "unpaid household care and services," is typically excluded from economic accounting and thus the full nature of women's economic contribution is under-estimated. Efforts are ongoing internationally to find better ways to estimate the economic value of such work. ${ }^{10}$ Additional in-country experimentation can test different methods to better count women's work in the specific context of Pakistan so that we can more fully understand their economic participation.

There is very limited data on women's aspirations for their lives, how labor force participation fits into these aspirations, and how aspirations correlate with opportunities. Why women are not in the labor force - or why even educated women have limited occupational choices - may in part relate to women's aspirations and expectations. For instance, it is possible that women's aspirations for labor market participation may not align with current or potential employment opportunities in urban or rural areas. However, there is next to no data on the aspirations of women in different socioeconomic strata for their lives as economic actors, such as what types of work women want to do and why, and what motivates these aspirations.

A range of structural and related barriers remains to be analyzed because of lack of nationally representative data. Examples include the status of and importance of appropriate housing for women, women's perceptions of and experiences with transportation to work, women's sources of information about jobs, and women's knowledge of laws on employment benefits and rules.

Our analysis suggests that household attitudes and behavior, and social norms, play an important role in determining whether, what, when, and how women can work for pay. However, existing national datasets include only a few indicators to measure such factors. For instance, the multivariate analysis of the LSS strongly suggests that husbands' attitudes play an important role in women's labor force participation, as do mobility and perceptions of safety. Additional representative data needs to delve further

10 See, for example, Donehower, Gretchen, Alexia Fürnk-ranz-Prskawetz, Ronald D. Lee, Sang-Hyop Lee, Andrew Mason, Tim Miller, Germano Mwabu, Naohiro Ogawa, and Adedoyin Soyibo.
2017. "Counting Women's Work: Measuring the gendered economy in the market and at home." National Transfer Accounts Bulletin No. 11. http://ntaccounts.org/doc/repository/NTA\ Bulletin\  11.pdf
into the role of husbands and other gatekeepers (parents, parents-in-law, community elders, to name a few) in determining women's labor force participation, the importance of actual experiences of safety and violence as barriers to FLFP, and the dynamics of other social and gendered norms such as the stigma associated with working outside the home, the importance of purdah, and so on.

A likely critical barrier - sexual harassment on the way to and in the workplace - remains woefully under-researched. Pakistan has strong laws against workplace sexual harassment in place and the institutional arrangements to implement them. Yet, there is limited understanding, practically no national data, and little analysis of sexual harassment at work that women might face. In particular, there is no nationally - or for that matter internationally - standardized definition or measurement of sexual harassment related to work outside the home.

There is limited data and analysis on the gender dynamics in the workplace that influence women's performance at work. Research on FLFP to-date has focused primarily on barriers to entry into the labor force. However, there is less understanding of the gendered barriers that employed women may face, and that may negatively impact their work performance and upward mobility. An exploration of possible enablers, such as mentors and role models, or of initiatives to facilitate crossovers to male-dominated sectors, is even more limited. Moreover, the nature of constraints and enablers will vary by the nature of the type, levels, and sector of employment being discussed, adding to the nuance required to collect and analyze such data.

Similarly, there is a need to focus attention on the relationship between women's labor force participation and their own wellbeing. All labor force participation does not automatically improve women's lives in all dimensions. In fact, there are possibly certain types of labor force participation that, while increasing household income, may lower women's wellbeing, for instance their health. A potential 'double burden' of continuing household work together with work outside the home may also adversely affect women's wellbeing. This makes it important to understand the time use dynamics of not just women out of the labor force, as afforded by the Labor Force Surveys, but also of economically active women. On the other hand, certain kinds of employment are likely to improve women's wellbeing and empowerment by increasing their decision-making power and status in
the household. Better data and analysis is needed to understand the conditions under which labor force participation can improve women's wellbeing in the Pakistani context.

Finally, we know little about how conflict and uncertainty impact women's aspirations, opportunities and experience of labor force participation and employment. Terrorism, other forms of conflict, and consequent insecurity have ramifications for women's role as economic actors. While conflict inflicts suffering on everyone, women are particularly affected in ways that influence not just their overall safety and quality of life but also their need for and potential to engage in meaningful work. Women living in conflict-prone and insecure environments struggle to support their families when the traditional breadwinners - husbands and sons - are caught up in fighting, or are dead. However, space to challenge entrenched gender norms may open up and create new roles and opportunities for women - including in the labor market - if conflict upsets the existing social order. Understanding women's experiences of insecurity and conflict in different parts of Pakistan and its implications for women's hopes and opportunities for engaging in meaningful work is crucial.

## What's next?

An ongoing study on urban FLFP in Pakistan, the Women in the Workforce study, seeks to address many of the gaps in data and analysis identified above. The Pakistan Gender and Social Inclusion Platform, in collaboration with the Poverty Global Practice, is preparing to field a qualitative and quantitative study to collect data on several of the key issues for which we do not yet have adequate information. Given the particularly low levels of female labor force participation within urban areas, the study will focus on
select metropolitan areas in urban Pakistan, specifically, Lahore and other urban areas in Punjab province, Karachi in Sindh province, Peshawar in KP province and Quetta in Balochistan province.

The Women in the Workforce study will address barriers at different points of the job cycle, namely, barriers that women seeking to get into the labor market face, as well as barriers that employed women have to deal with in their daily work and in efforts to improve their jobs and careers. A key aspect of this analysis will be a more nuanced understanding of social and gender norms influencing women's economic participation. We will also gain a better understanding of women's own aspirations for economic participation by asking questions such as: What kinds of jobs and working situations do women ideally want? What do women perceive as the key barriers to working outside the home, and consider workable solutions to address these barriers? Gender dynamics in the workplace will be measured and analyzed keeping in mind that such constraints differ for women in different levels and types of occupations and professions. Finally, we will seek to investigate overarching issues related to labor force participation for all women, such as the conditions under which labor force participation can enhance women's wellbeing, or the role that conflict and uncertainty play in household's and women's own decision-making choices for economic engagement.

Finally, the Women in the Workforce study will experiment with ways to better measure women's work. While women's economic production activities for market use may be measured by surveys, women in Pakistan and other countries are also engaged in a large amount of "household production" work that is rarely, if ever, measured. The upcoming study will field different ways to try and measure such contribution to the household by women in urban areas.

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APPENDIX 1: TRENDS IN FACTORS ASSOCIATED WITH FEMALE LABOR FORCE PARTICIPATION: 1999-2014

|  | WOMEN |  |  | MEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1999 | 2005 | 2014 | 1999 | 2005 | 2014 |
| Area of residence |  |  |  |  |  |  |
| Urban (2013) | $\begin{gathered} -0.11 \text { *** } \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.14^{\star \star *} \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.21 * * * \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.04 * * * \\ (0.00) \end{gathered}$ | $\begin{gathered} -0.04^{* * *} \\ (0.00) \end{gathered}$ | $\begin{aligned} & 0.04^{* * *} \\ & (0.00) \end{aligned}$ |
| Province (reference: Punjab) |  |  |  |  |  |  |
| Sindh | $\begin{gathered} -0.11 \text { *** } \\ (0.01) \end{gathered}$ | $\begin{aligned} & -0.16^{* * *} \\ & (0.01) \end{aligned}$ | $\begin{gathered} -0.14^{* * *} \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.02 * * * \\ (0.00) \end{gathered}$ | $\begin{aligned} & 0.01^{* * *} \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.03^{* * *} \\ & (0.00) \end{aligned}$ |
| Khyber Pakhtunkhwa | $\begin{gathered} -0.10 \star \star \star \\ (0.02) \end{gathered}$ | $\begin{aligned} & -0.18^{\star * *} \\ & (0.02) \end{aligned}$ | $\begin{gathered} -0.18^{* * *} \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.06^{* * *} \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.05^{* * *} \\ (0.01) \end{gathered}$ | $\begin{aligned} & 0.04^{\star * *} \\ & (0.00) \end{aligned}$ |
| Balochistan | $\begin{gathered} -0.15 * * * \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.16^{* * *} \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.15 * * * \\ (0.02) \end{gathered}$ | $\begin{gathered} -0.06 * * * \\ (0.01) \end{gathered}$ | $\begin{gathered} 0.00 \\ (0.01) \end{gathered}$ | $\begin{gathered} 0.00 \\ (0.01) \end{gathered}$ |
| Highest education level achieved (reference: no education) |  |  |  |  |  |  |
| Primary | $\begin{gathered} -0.07 * * * \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.06^{* * *} \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.11 * * * \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.02^{* * *} \\ (0.00) \end{gathered}$ | $\begin{gathered} -0.02^{* * *} \\ (0.00) \end{gathered}$ | $\begin{aligned} & 0.01^{* * *} \\ & (0.00) \end{aligned}$ |
| Secondary | $\begin{gathered} -0.03 * * * \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.10 \star * * \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.17^{* * *} \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.16^{* * *} \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.14^{\star * *} \\ (0.01) \end{gathered}$ | $\begin{aligned} & 0.14^{* * *} \\ & (0.01) \end{aligned}$ |
| Post-secondary | $\begin{gathered} 0.22^{* * *} \\ (0.03) \end{gathered}$ | $\begin{gathered} 0.12^{* * *} \\ (0.02) \end{gathered}$ | $\begin{gathered} 0.13 * * * \\ (0.01) \end{gathered}$ | $\begin{aligned} & -0.15 * * * \\ & (0.01) \end{aligned}$ | $\begin{gathered} -0.15 * * * \\ (0.01) \end{gathered}$ | $\begin{gathered} 0.09 * * * \\ (0.01) \end{gathered}$ |
| Marital status |  |  |  |  |  |  |
| Married | $\begin{gathered} 0.01 \\ (0.02) \end{gathered}$ | $\begin{gathered} -0.07^{* * *} \\ (0.01) \end{gathered}$ | $\begin{gathered} -0.07^{* * *} \\ (0.00) \end{gathered}$ | $\begin{gathered} 0.10 \star * * \\ (0.01) \end{gathered}$ | $\begin{gathered} 0.08 * * * \\ (0.00) \end{gathered}$ | $\begin{aligned} & 0.10^{* * *} \\ & (0.00) \end{aligned}$ |
| Household characteristics |  |  |  |  |  |  |
| Household size | $\begin{gathered} -0.01 * * * \\ (0.00) \end{gathered}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{gathered} 0.00 \\ (0.00) \end{gathered}$ | $\begin{gathered} 0.01 \\ (0.00) \end{gathered}$ | $\begin{aligned} & 0.01 * * * \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.00 * * * \\ & (0.00) \end{aligned}$ |
| Number of children under age 5 years | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.00 \\ & (0.00) \end{aligned}$ | $\begin{gathered} 0.00 \\ (0.00) \end{gathered}$ | $\begin{gathered} 0.00 \\ (0.00) \end{gathered}$ | $\begin{aligned} & 0.00^{* * *} \\ & (0.00) \end{aligned}$ |
| Any elderly household members over 64 years | $\begin{gathered} -0.00 \\ (0.01) \end{gathered}$ | $\begin{gathered} 0.00 \\ (0.00) \end{gathered}$ | $\begin{aligned} & 0.01^{* *} \\ & (0.00) \end{aligned}$ | $\begin{gathered} 0.00 \\ (0.00) \end{gathered}$ | $\begin{gathered} -0.01^{* *} \\ (0.00) \end{gathered}$ | $\begin{aligned} & 0.01^{* * *} \\ & (0.00) \end{aligned}$ |
| Age |  |  |  |  |  |  |
| Age | $\begin{gathered} 0.03^{* * *} \\ (0.00) \end{gathered}$ | $\begin{aligned} & 0.02^{\star * *} \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.02^{* * *} \\ & (0.00) \end{aligned}$ | $\begin{gathered} 0.05 * * * \\ (0.00) \end{gathered}$ | $\begin{aligned} & 0.05 * * * \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.05 * * * \\ & (0.00) \end{aligned}$ |
| Age-squared | $\begin{gathered} -0.00^{* * *} \\ (0.00) \end{gathered}$ | $\begin{gathered} -0.00 * * * \\ (0.00) \end{gathered}$ | $\begin{gathered} -0.00^{* * *} \\ (0.00) \end{gathered}$ | $\begin{gathered} -0.00 * * * \\ (0.00) \end{gathered}$ | $\begin{aligned} & -0.00 * * * \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.00 * * * \\ & (0.00) \end{aligned}$ |
| Total observations | 28,273 | 58,177 | 71,651 | 28,988 | 59,235 | 71,749 |

Outcome: Female Labor Force Participation; logit regression with marginal effects
Standard errors in parentheses; *** $p<0.01,{ }^{* *} p<0.05,{ }^{*} p<0.1$
Source: Authors' analysis of Labor Force Surveys.

## APPENDIX 2: NORMATIVE FACTORS ASSOCIATED WITH FEMALE LABOR FORCE PARTICIPATION: 2015

| Important decisions in the family should be made by men | $\begin{gathered} -0.01 \\ (0.017) \end{gathered}$ |
| :---: | :---: |
| A married woman should be allowed to work outside the home if she wants to | $\begin{gathered} 0.01 \\ (0.020) \end{gathered}$ |
| Men's attitudes on household decision-making and women's work (2013) |  |
| Important decisions in the family should be made by men | $\begin{gathered} -0.01 \\ (0.021) \end{gathered}$ |
| A married woman should be allowed to work outside the home if she wants to | $\begin{aligned} & 0.05 * * * \\ & (0.018) \end{aligned}$ |
| If a woman is working outside the home, her husband should help with chores | $\begin{gathered} 0.00 \\ (0.020) \end{gathered}$ |
| Women's mobility and perceptions of safety (2013) |  |
| Respondent (woman) is allowed to go to the local market alone (unaccompanied) | $\begin{gathered} 0.03^{*} \\ (0.019) \end{gathered}$ |
| Respondent (woman) feels safe walking alone outside in her community in the day | $\begin{aligned} & 0.03 * * \\ & (0.017) \end{aligned}$ |
| Respondent's age, marital status and residence |  |
| Current age | $\begin{gathered} -0.00 \\ (0.001) \end{gathered}$ |
| Currently married | $\begin{gathered} 0.01 \\ (0.022) \end{gathered}$ |
| Urban residence in 2013 | $\begin{aligned} & -0.04^{\star *} \\ & (0.020) \end{aligned}$ |
| Household wealth (reference: poorest wealth quintile) (2013) |  |
| Respondent's household is in 2nd poorest wealth quintile | $\begin{gathered} 0.00 \\ (0.031) \end{gathered}$ |
| Respondent's household is in 3rd wealth quintile | $\begin{aligned} & -0.07^{* *} \\ & (0.029) \end{aligned}$ |
| Respondent's household is in 4th wealth quintile | $\begin{aligned} & -0.06^{* *} \\ & (0.031) \end{aligned}$ |
| Respondent's household is in highest wealth quintile | $\begin{aligned} & -0.10^{* * *} \\ & (0.032) \end{aligned}$ |
| Respondent's highest level of education (reference: no education) and cognitive score (2013) |  |
| Primary education | $\begin{gathered} -0.03 \\ (0.024) \end{gathered}$ |
| Middle school education | $\begin{gathered} -0.03 \\ (0.030) \end{gathered}$ |
| High school and above | $\begin{aligned} & 0.08^{\star *} \\ & (0.035) \end{aligned}$ |
| Raven's cognitive score | $\begin{aligned} & 0.000^{* *} \\ & (0.001) \end{aligned}$ |
| Total observations | 1,608 |
| Outcome: Female Labor Force Participation; logit regression with marginal effects <br> Standard errors in parentheses; *** $p<0.01,{ }^{* *} p<0.05, * p<0.1$ <br> Source: Authors' analysis of Labor Skills Surveys 2013 and 2015 |  |

## APPENDIX 3: OCCUPATIONAL SEGREGATION BY EDUCATION

| NO EDUCATION |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| URBAN MALE |  | URBAN FEMALE |  | RURAL MALE |  | RURAL FEMALE |  |
| Building, construction labourers | 10.96 | Domestic cleaners and helpers | 19.68 | Mixed crop and animal producers | 26.58 | Livestock and dairy producers | 42.85 |
| Shop keepers | 9.6 | Tailors, dressmakers, furriers and hatters | 19.17 | Field crop and vegetable growers | 14.58 | Mixed crop and animal producers | 20.28 |
| Street food salespersons | 5.18 | Sewing, embroidery and related workers | 12.58 | Building, construction labourers | 9.43 | Crop farm labourers | 13.04 |
| Manufacturing labourers not elsewhere classified | 3.68 | Livestock and dairy producers | 12.52 | Livestock and dairy producers | 7.06 | Field crop and vegetable growers | 9.22 |
| Car, taxi and van drivers | 3.54 | Mixed crop and animal producers | 4.49 | Crop farm labourers | 5.98 | Tailors, dressmakers, furriers and hatters | 3.36 |
|  | 32.96 |  | 68.44 |  | 63.63 |  | 88.75 |
| Primary Education |  |  |  |  |  |  |  |
| Shop keepers | 14.34 | Tailors, dressmakers, furriers and hatters | 37.8 | Mixed crop and animal producers | 21.66 | Livestock and dairy producers | 43.3 |
| Building, construction and repair | 7.36 | Sewing, embroidery and related workers | 14.45 | Field crop and vegetable growers | 10.86 | Mixed crop and animal producers | 15.05 |
| Shop sales assistants | 5.72 | Domestic cleaners and helpers | 10.34 | Building, construction labourers | 9.16 | Tailors, dressmakers, furriers and hatters | 12.32 |
| Tailors, dressmakers, furriers and hatters | 4.62 | Livestock and dairy producers | 6.59 | Shop keepers | 7.96 | Crop farm labourers | 10.51 |
| Motor vehicle mechanics and repairers | 4.06 | Handicraft workers in textile, leather and related materials | 3.29 | Livestock and dairy producers | 4.53 | Field crop and vegetable growers | 4.38 |
|  | 36.1 |  | 72.47 |  | 54.17 |  | 85.56 |
| Secondary Education |  |  |  |  |  |  |  |
| Shop keepers | 19.73 | Tailors, dressmakers, furriers and hatters | 27.78 | Mixed crop and animal producers | 22.62 | Livestock and dairy producers | 28.88 |
| Shop sales assistants | 7.33 | Primary school teachers | 19.1 | Shop keepers | 11.96 | Tailors, dressmakers, furriers and hatters | 15.2 |
| Tailors, dressmakers, furriers and hatters | 4.43 | Sewing, embroidery and related workers | 8.98 | Field crop and vegetable growers | 7.41 | Mixed crop and animal producers | 13.85 |
| Car, taxi and van drivers | 3.85 | Secondary education teachers | 6.05 | Building, construction labourers | 4.78 | Primary school teachers | 9.12 |
| Motor vehicle mechanics and repairers | 2.6 | Beauticians and related workers | 3.46 | Livestock and dairy producers | 3.29 | Crop farm labourers | 6.94 |
|  | 37.94 |  | 65.37 |  | 50.06 |  | 73.99 |
| Post-Secondary Education |  |  |  |  |  |  |  |
| Shop keepers | 10.79 | Secondary education teachers | 35.75 | Primary school teachers | 16.66 | Primary school teachers | 42.92 |
| Accountants | 6.09 | Primary school teachers | 27.58 | Secondary education teachers | 12.01 | Secondary education teachers | 28.95 |
| Secondary education teachers | 5.91 | University and higher education teachers | 5.62 | Mixed crop and animal producers | 8.45 | Livestock and dairy producers | 5.07 |
| Primary school teachers | 4.58 | Generalist medical practitioners | 4.57 | Shop keepers | 8.24 | Teaching professional n.e.c. | 4.91 |
| General office clerks | 3.84 | Teaching professionals not elsewhere classified | 3.68 | Field crop and vegetable growers | 4.05 | University and higher education teachers | 2.05 |
|  | 31.21 |  | 77.2 |  | 49.41 |  | 83.9 |


[^0]:    1 Patterns described in this paragraph are analyzed in more detail in the upcoming Jobs Diagnostic.
    2 LFP rates should be interpreted with caution because of a potential downward bias, particularly for women, as is discussed in detail in the upcoming Jobs Diagnostic. One important driver of this downward bias is measurement error arising from a lack of clarity about what constitutes "work" for women. In Pakistan this is important as women are often employed in non-standard forms of work such as unpaid family work or home-based work. Downward bias can also occur because of misreporting: the LFS questions the male head of household, who may not be aware about all the economic activities carried out by women, or may under-report such activities because of perceived biases against women working for pay. The ongoing Women in the Workforce study will address some of these shortcomings.

[^1]:    Source: Authors' analysis of multiple Labor Force Surveys

[^2]:    5 The gender gap here is measured as the ratio of men's to women's labor force participation, or the percent of male LFP divided by the percent of female LFP
    6 However, LFS data from Balochistan is considered less reliable than from other provinces, so this pattern needs to be considered cautiously.

[^3]:    7 Zaidi Y., Farooq S. et al. 2016. "Women's Economic Participation and Empowerment in Pakistan - Status Report 2016". UN Women Pakistan. Islamabad, 57.
    8 Ibid, 156.

[^4]:    9 The pie charts do not add up to a 100\% as they only represent "housework" and "student" as reasons. The minor remaining percentage highlights other reasons such as "disabled" and "retired."

[^5]:    Source: Authors' analysis of Enterprise Survey 2013

[^6]:    Source: Authors' analysis of Labor Skills Survey 2015

