



Research Article

Impact of Remittances on Female Labour Participation in Pakistan

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Abstract

This study examines how international remittances relate to women's labour force participation in Pakistan using nationally representative HIES/PSLM 2018–19 microdata. We estimate logistic models to compare women in remittance-receiving and non-receiving households and, among recipients, test whether remittance size matters. Women in receiving households are 6–11 percentage points less likely to work, after controls and location fixed effects. Within recipient households, the relationship is negative and monotonic: as monthly log remittances rise from 8 to 16, the predicted probability of participation falls from about 17 to 5 percent. The intensity effect is strongest in rural areas and Khyber Pakhtunkhwa, and is insignificant in urban areas, Punjab, and Sindh. Results are consistent with an income effect and household bargaining that shift time toward non-market activities. Because the analysis is cross-sectional, remaining endogeneity cannot be ruled out. The findings inform policies that tie remittance income to flexible, decent work options for women.

Keywords: Remittances, Female labour participation, Migration, Pakistan.

Introduction

International remittances have become a steady and important part of household income in Pakistan. They flow mainly from long-standing migration routes to the Gulf and help households manage expenses, deal with emergencies, and invest in daily needs (Zuntz, 2021). At the same time, these inflows often change how families think about work. When regular remittances arrive, the need for extra income can fall, and some household members, especially women, may leave paid work or take on more unpaid responsibilities at home (McKenzie & Menjívar, 2011). Yet, remittances can also open new opportunities. Households might use them to support education, start a small business, or arrange childcare, which could make it easier for women to re-enter or stay in the labour market (Shair et al., 2024; Shair & Anwar, 2023). Because women's jobs in Pakistan are mostly informal or low-paid, the overall impact of remittances on their participation in work is not straightforward and can vary across regions and social settings.

Across developing economies, studies show a consistent link between remittances and women's participation in the labour market, though the strength and nature of this link differ by setting. Mughal and Makhlof (2013) used Pakistan's HIES data and found that both foreign and domestic remittances reduce labour force participation, especially among women and rural households, while encouraging self-employment and education. Shair et al (2023a) reached similar conclusions using more recent urban–rural data from Pakistan, noting that women in remittance-receiving households are more likely to move toward home-based or self-employed work rather than formal employment. Studies from India echo these findings. Khan and Baruah

(2021) showed that rural Indian women withdraw from casual or unpaid jobs once households receive remittances, whereas Khan and Valatheeswaran (2016) found that in Kerala, migration and remittances reduce both men's and women's market work, but women's household duties expand more sharply.

Evidence from Africa and Latin America aligns with these patterns while adding fresh context. Asiedu and Chimbar (2020) observed in Ghana that women in rural remittance-receiving households show a marked drop in participation compared to their urban counterparts. Jadotte and Ramos (2016) reported a fall in labour supply in Haiti but noted that the reduction was greater for men than women, showing that local labour structures can change the pattern. Earlier research such as Acosta (2007) in El Salvador and Binzel and Assaad (2011) in Egypt also linked remittances to lower female participation, often replaced by household or unpaid work. Broader studies like Lopez-Ekra et al. (2011) added that who controls the remittance money affects outcomes: women who receive and manage remittances often invest in education and health rather than entering the labour market. Together, these studies point to a clear income effect that raises women's reservation wages and reshapes work choices, particularly in rural and lower-income settings.

Despite growing research on remittances and labor supply, little is known about how these effects differ for women across Pakistan's diverse regions. Earlier studies, such as Mughal and Makhoul (2013), Nwokoye et al (2020) and Shair et al. (2023a; 2023b), found that remittances reduce female participation overall, while evidence from India (Khan & Baruah, 2021) and Ghana (Asiedu & Chimbar, 2020) showed stronger declines in rural areas. Yet, few studies jointly assess both the receipt and intensity of remittances using nationally representative data. This study addresses that gap by examining how remittances shape women's labor participation across rural-urban and provincial contexts in Pakistan.

This study examines how international remittances affect women's participation in Pakistan's labour force using nationally representative HIES/PSLM data. It first compares participation rates between women in remittance-receiving and non-receiving households, then tests whether the size of foreign remittances influences these outcomes. By distinguishing between receipt and intensity effects, the analysis captures variation across rural and urban areas and across provinces. The findings contribute to the migration-development debate by showing that while remittances strengthen household welfare, they can also reduce women's paid work, particularly where non-labour income replaces low-wage employment. Recognizing these differences is essential for designing policies—such as skills training, childcare provision, and entrepreneurship support—that enable remittance income to promote women's economic engagement rather than pull them away from the labour market.

Econometric Model

To examine the effect of remittance-receiving status on female labour participation, the study employs a binary logistic regression model. Let Y_{ih} denote labour participation, where $Y_{ih} = 1$ if a female participates in the labour market and 0 otherwise. The key explanatory variable is household remittance status R_h , coded 1 if the household received foreign remittances in the last year, and 0 otherwise. Other control variables X_{ih} include province dummies, region (urban = 1), age, education (years), marital status dummies, and log household income. The econometric model is specified as:

$$Pr(Y_{ih} = 1 | R_h, X_{ih}) = \Lambda(\alpha_0 + \alpha_1 R_h + \gamma' X_{ih}) \quad (1)$$

Where, $\Lambda(z) = \frac{e^z}{1 + e^z}$ is the logistic cumulative distribution function. The coefficient α_1 captures the marginal effect of being in a remittance-receiving household on the probability of labour participation. A negative α_1 indicates that females in remittance-receiving households are less likely to participate in the labour market, reflecting a possible income-leisure trade-off.

The second objective investigates whether the magnitude of remittances affects labour participation among women in remittance-receiving households. Restricting the sample to $R_h = 1$, let $\tilde{M}_h = \ln\left(\frac{\text{Total remittances (Rs., last year)}}{12}\right)$. The logistic model is formulated as:

$$Pr(Y_{ih} = 1 | \tilde{M}_h, X_{ih}) = \Lambda(\beta_0 + \beta_1 \tilde{M}_h + \delta' X_{ih}) \quad (2)$$

where $\Lambda(z) = \frac{e^z}{1+e^z}$ is the logistic cumulative distribution function. The coefficient β_1 measures the marginal effect of changes in remittance size on the probability of female labour participation. A negative β_1 suggests that higher remittance inflows are associated with lower participation, indicating that increased household income from remittances may reduce women's incentive to engage in labour activities.

Data and Descriptive Analysis

Data Source

The study draws empirical insights from micro- data of the Household Integrated Economic Survey (HIES) 2018-2019 round available at the website of the Pakistan Bureau of Statistics. The said round also covers Pakistan Social and Living Standards Measurement (PSLM). This nationally representative dataset also provides information about household income, household expenditures, household remittances, and socio-demographic factors. To achieve the objective of this study, the sample limited to women who are of working age. The study excludes the females who were not enrolled in educational institutions, children, and elderly respondents. The final sample of analysis contains 49,082 women with 4,208 women being the remittance-receiving households and 44,874 the non-receiving households. This difference allows dedicating attention to analyzing the influence of the remittance dependence on the female labour participation in the various households types in Pakistan.

Table 1. Definition of variables .

Variable Name	Description
Outcome variable	
Labour participation	Employment status of the respondent: 1 = Employed (worked for pay, profit, or family gain), 0 = Not employed.
Key variables	
Remittances	Indicates whether the household received foreign remittances in the past year: 1 = Received, 0 = Not received.
Total remittances	Total amount of foreign remittances received during the last year (in Pakistani Rupees), converted into monthly remittances by dividing 12. Afterwards, this variable converted into log natural form.
Other covariates	
Province	Provincial location of the household: dummy variables for Khyber Pakhtunkhwa, Punjab, Sindh, and Balochistan.
Region	Area of residence: 1 = Urban, 0 = Rural.
Age	Age of the individual (in years).
Education	Years of formal education completed by the individual.
Marital status	Marital status of the individual: 1 = Never Married, 2 = Currently Married, 3 = Previously Married (Widowed/Divorced/Separated).
Household income	Household's monthly reported labour and non-labour income.

Descriptive Analysis

The summary statistic of all the variables used in the analysis in terms of household receiving remittances (n = 4,208) vs. those that do not receive them (n = 44,874) is presented in Table 2. The general average of the labour participation rate in the sample is about twenty percent which means that one-fifth of the working-age

population stated they were in employment or were taking part in income producing activities. Nevertheless, participation in labour is significantly decreased between the remittance-receiving households (9.6 percent) and the households that do not receive it (20.9 percent). This trend is pointing to the possibility of a labour-supply disincentive/substitution effect related to remittances, which is frequently identified in the migration-development literature. In the case of remittances incidence, the figure of 8.6 percent of the full sample had received foreign transfers with an average amount of approximately PKR 360,700 per year. On a logarithmic scale, the average amount of remittances is equal to 12.51, which is quite different in terms of the amount of inflows (minimum = PKR 3,000; maximum = PKR 3.6 million).

Geographic distribution it can be seen that households that receive remittance are concentrated on two provinces: Khyber Pakhtunkhwa (49.1 percent) and Punjab (47.4 percent), with relatively small shares of Sindh (2.4 percent) and Balochistan (1.1 percent). However, in non-receiving households, there is a preponderance of Punjab (42.4 percent) and Sindh (26.7 percent), which means that the migration and remittance paths are more intense in the northern areas of Pakistan. Most of the households (receiving and non-receiving) are in rural areas (around 69 percent and 66 percent, respectively) across the regions, which highlights the rural nature of the remittance inflows and its usage to sustain agrarian or semi-rural livelihoods.

Systematic differences also exist on the demographic features. The average age of the members of the remittance-receiving households is a bit older (36 years compared to 34 years) and has higher levels of education (4.23 years of schools compared to 2.96 years of schooling). This means that the migration and remittance flows can be linked to the households with a comparably higher human capital or prolonged exposure to formal education. Concerning marital composition, 69.8 percent of those in receiving households are married now versus 64.6 percent non-receivers as would be the case given the fact that migration decisions are usually household-based and not an individual decision-making.

Lastly, the average household income (Ln income) is 10.699 among the remittance receiver households and 10.237 among the non-receivers, which means that remittance receiver households are at higher average income levels. This initial finding is in line with the hypothesis that foreign remittances have a positive effect on household income but further econometric research is needed to establish whether the relationship holds after accounting other socioeconomic and regional variables.

Table 2. Descriptive statistics .

Variable	Obs	Mean	Std. Dev.	Min	Max	Remittance-Receiving Households (n = 4,208)	Non-Receiving Households (n = 44,874)
Labour participation							
No	49,082	0.801	0.400	0	1	0.904	0.791
Yes	49,082	0.199	0.400	0	1	0.096	0.209
Remittances received							
No	49,082	0.914	0.280	0	1	0.000	1.000
Yes	49,082	0.086	0.280	0	1	1.000	0.000
Total remittances	4,208	360,728.38	334,253.96	3,000	3,600,000	360,728.38	
Ln (remittances)	4,208	12.51	0.796	8.006	15.096	12.51	
Province							
Khyber Pakhtunkhwa	49,082	0.212	0.408	0	1	0.491	0.185

Punjab	49,082	0.428	0.495	0	1	0.474	0.424
Sindh	49,082	0.247	0.431	0	1	0.024	0.267
Balochistan	49,082	0.114	0.317	0	1	0.011	0.123
Region							
Rural	49,082	0.663	0.473	0	1	0.695	0.660
Urban	49,082	0.337	0.473	0	1	0.305	0.340
Age	49,082	34.607	16.56	10	99	36.06	34.47
Education	49,082	3.068	4.687	0	21	4.23	2.96
Marital status							
Never Married	49,082	0.262	0.440	0	1	0.221	0.266
Currently Married	49,082	0.651	0.477	0	1	0.698	0.646
Previously Married	49,082	0.087	0.282	0	1	0.081	0.088
Ln(household income)	49,082	10.277	0.664	6.397	14.221	10.699	10.237

Results and Discussion

Laboure Participation: Across Receiving and Non-receiving Households

Table 3 presents the marginal effects from a logistic regression model estimating the determinants of labour participation of individuals in Pakistan. The first and the most interesting finding is that there is a strong and statistically significant negative association between remittance receipt and likelihood of labour participation. The marginal impact of remittances is -0.090 ($p < 0.01$), suggesting that, controlling for all other factors, female of remittance-receiving households is about 9 percentage points less likely to be participate in the labour market than female of non-receiving households. This finding is empirical evidence of the ‘income effect’ of remittances in which external transfers augment the household’s income and thereby facilitating the partial or whole fulfilment of material needs of household members and allow members to remain out of labour force.

Table 4 also examines the marginal impacts of the receipt of remittances on the likelihood of labour force participation for rural-urban and provincial subsamples. The results are consistent with the baseline model, showing a strong and negative association between remittance receipt and likelihood of labour-market participation, but with quite different sizes of effect across regions. In the rural areas (Model 1), remittance receipt decreases the probability of labour involvement by about 12 percentage points ($p < 0.01$), which is the largest marginal effect across all subsamples. This significant drop is an indication that rural households are depending increasingly on the inflows of remittances as a replacement for domestic labour income. On contrary to rural area, in urban areas (Model 2), the negative effect continues to be statistically significant but less strong (-6 percentage points). The stronger negative impact in rural areas arises because rural households rely more heavily on remittances to meet consumption needs, often lacking alternative income sources or formal job opportunities. Remittances in these settings act as a substitute for local earnings, reducing the need for household members—especially women—to engage in agricultural or informal labour. In contrast, urban households have more diversified income streams, higher living costs, and greater access to wage employment, which temper the extent to which remittance inflows discourage labour participation.

The heterogeneity presented in Table 4 is even more apparent across provinces excluding the Balochistan due to lack of responses. Model 3 which is consist of females from Khyber Pakhtunkhwa, suggest that association continues to be negative and significant (-6.5 percentage points, $p < 0.01$), but in a lesser magnitude, perhaps because of the normalisation of remittance inflows as part of the regular income sources. Likewise, Model 3

which is consist of females from Punjab shows the marginal effect of remittance receipt is large (11 percentage points, $p < 0.01$), similar to the rural trend, indicating that women from remittances receiving household are less inclined to labour participation. By contrast, the coefficient for Sindh (Model 5) is negative (-7.7 percentage points) but statistically insignificant, suggesting that likelihood of labour participation for women from Sindh is not differ.

Women in remittance-receiving households are less likely to work because remittances change the way families balance income and effort. From a labour supply perspective, when money flows in from abroad, households experience an income effect: they can meet expenses without needing everyone to work (Justino & Shemyakina, 2012; Rapoport & Docquier, 2006). Since women in Pakistan often earn lower wages or work in informal jobs, their labour is the first to be withdrawn when additional income arrives. The household can maintain or even improve its living standard without women working outside, so many shift their time toward domestic care, child-rearing, or household management. This tendency is also supported by cultural expectations that view women's home-based roles as a sign of economic comfort and family stability. In that sense, remittances indirectly validate traditional choices while easing financial pressures that might otherwise push women into low-paying work.

Another possible explanation relates to how remittances affect household decision-making and women's autonomy. When men migrate and send money home, they often remain the main decision-makers, either directly or through senior family members. In such arrangements, remittances can reinforce existing gender norms rather than expand women's control over economic choices. Even though remittances could help women invest in small businesses, skill training, or education, these opportunities may not materialize if women have limited freedom of movement or lack access to capital and markets. The persistence of lower participation across provinces such as Punjab, Sindh, and Khyber Pakhtunkhwa, and in both rural and urban settings, suggests that social norms and household dynamics outweigh the potential empowerment effects of remittances. So, while these inflows improve financial stability, they also tend to reduce women's presence in the labour market, at least in the short run.

Table 3. Marginal effect of remittances-receipt on labour participation.

Variable	dy/dx	Std. Err.	z	P > z	[95% Conf. Interval]
Remittances (Yes)	-0.0901	0.0058	-15.64	0.000	-0.1013 – -0.0788
Province:					
(Ref: Khyber Pakhtunkhwa)					
Punjab	0.1300	0.0045	29.13	0.000	0.1213 – 0.1388
Sindh	0.1225	0.0051	24.00	0.000	0.1125 – 0.1325
Balochistan	-0.0204	0.0050	-4.07	0.000	-0.0302 – -0.0106
Region					
Urban	-0.0955	0.0038	-25.14	0.000	-0.1029 – -0.0880
Age	-0.0006	0.0002	-3.81	0.000	-0.0009 – -0.0003
Education (Years)	-0.0015	0.0005	-3.21	0.001	-0.0024 – -0.0006
Marital Status: (Ref: Never Married)					
Currently Married	0.0355	0.0048	7.43	0.000	0.0261 – 0.0448
Previously Married	-0.0139	0.0085	-1.64	0.100	-0.0305 – 0.0027
Log of Income (lincome)	-0.0340	0.0030	-11.19	0.000	-0.0399 – -0.0280
Observations	49,082				

The control variables also point to important heterogeneities. Comparatively, labour participation probabilities are much higher in Punjab and Sindh than those in Khyber Pakhtunkhwa (by 13 and 12 percentage points, respectively) whereas the Balochistan sample displays a small but negative effect (-0.02 , $p < 0.01$). It implies that differences in women labour participation can also attributed to regional difference. For instance, Punjab and Sindh have a more formalized and industrialized employment base which turn up higher female labour participation, and Balochistan have a more resource-dependent and less diversified base which is showing lower labour participation of women. Urban residence is significantly and negatively associated with labour participation (coefficient -0.095 , $p < 0.01$), which may be a result of various patterns of household composition and of informal employment relationships as compared with those in the rural areas. Age and education both have small but statistically significant negative effects, suggesting that older or better educated people are slightly less likely to be in paid work - perhaps because of earlier retirement for older workers, or the tendency of better educated people to avoid employment when no better matching opportunities are available.

Marital status is also relevant: the current marital status increases the probability of labour participation by 3.5 percentage points ($p < 0.01$), which corresponds to the greater economic burden which is generally carried by married households. Finally, household income (logarithmized) exhibits a negative marginal effect (-0.034 , $p < 0.01$), which is in accordance with the idea that higher income households have a lesser dependence on labour participation as a livelihood resource.

Table 4. Marginal effect of remittances-receipt on labour participation across sub-sample.

Variable	Model 1: Rural	Model 2: Urban	Model 3: KPK	Model 4: Punjab	Model 5: Sindh
Remittances (Yes)	-0.1199^{***} (0.0108)	-0.0645^{***} (0.0125)	-0.0652^{***} (0.0095)	-0.1128^{***} (0.0124)	-0.0768 (0.0504)
Province (Ref: Khyber Pakhtunkhwa)	-	-			
Punjab	0.1771^{***} (0.0070)	0.0703^{***} (0.0084)	—	—	—
Sindh	0.1667^{***} (0.0076)	0.0596^{***} (0.0087)	—	—	—
Balochistan	-0.0300^{***} (0.0106)	-0.0489^{***} (0.0135)	—	—	—
Region					
Urban	—	—	-0.0640^{***} (0.0076)	-0.0981^{***} (0.0072)	-0.1334^{***} (0.0092)
Age	-0.0011^{***} (0.0002)	0.0001 (0.0002)	0.0009^{***} (0.0002)	-0.0010^{***} (0.0002)	-0.0015^{***} (0.0003)
Education (Years)	-0.0086^{***} (0.0007)	0.0050^{***} (0.0005)	0.0087^{***} (0.0007)	-0.0062^{***} (0.0007)	-0.0058^{***} (0.0011)
Marital Status: (Ref: Never Married)					
Currently Married	0.0773^{***} (0.0066)	-0.0414^{***} (0.0069)	0.0245^{***} (0.0084)	0.0077 (0.0084)	0.0810^{***} (0.0109)

Previously Married	-0.0096 (0.0128)	-0.0194 (0.0129)	-0.0062 (0.0164)	-0.0532 *** (0.0153)	0.0298 (0.0216)
Ln (household Income)	-0.0329 *** (0.0040)	-0.0309 *** (0.0044)	-0.0285 *** (0.0050)	-0.0446 *** (0.0049)	-0.0233 *** (0.0070)
Observations	32,519	16,563	10,386	21,012	12,104

Laboure Participation and Differential Impact of Remittances

Table 5 reports the marginal effects of the log of the quantity of inflows of foreign remittances received by the households on the probability of labour participation. The most important result shows that there is a negative and significant correlation between the level of remittance inflows and labor-market participation. In particular, the coefficient of log remittances is -0.0149 ($p < 0.05$), meaning that, for remittance-receiving households, a 1% rise in the value of remittance would result in about a 0.015 percentage point fall in the likelihood of an individual participating in labour. As for remittance receiving households, Figure 1 and Table 6 show the decreasing predicted probability of labour participation as the inflow of remittances per month increases in natural logarithms. This relationship is negative and monotonic in nature as it depicts that remittances increase from 8 log points to 16 log point, the predicted probability of women's labour participation decreases from 17 percentage point to 5 percentage point. It implies that higher remittance inflows have a significant negative impact on the probability of household labour-market participation.

Table 7 shows the heterogeneity analysis of the effect of remittance amounts (logarithm) on labor participation rate in rural-urban and provincial subsample, which reveals subtle differences on the effect of the size of remittance inflows on household work behavior in different socio-geographical environments. The findings indicate that the negative relationship between remittance size and labor participation is the highest and statistically significant in rural regions ($dy/dx = -0.015$, $p < 0.05$) and Khyber Pakhtunkhwa ($dy/dx = -0.028$, $p < 0.01$). While for the rural area, Punjab, and Sindh it is depicting insignificant impact.

Table 5. Marginal effect of amount of remittances on labour participation for remittance-receiving households.

Variable	dy/dx	Std. Err.	z	P > z	[95% Conf. Interval]
Ln(remittances)	-0.0149 **	0.0064	-2.32	0.020	-0.0275 – -0.0023
Province:					
(Ref: Khyber Pakhtunkhwa)					
Punjab	0.0602 ***	0.0101	5.97	0.000	0.0405 – 0.0800
Sindh	0.0929 **	0.0375	2.48	0.013	0.0194 – 0.1664
Balochistan	—	(not estimable)	—	—	—
Region:					
Urban	-0.0397***	0.0096	-4.15	0.000	-0.0584 – -0.0209
Age	0.0005	0.0004	1.38	0.168	-0.0002 – 0.0012
Education (Years)	0.0028 **	0.0010	2.72	0.006	0.0008 – 0.0048
Marital Status					
(Ref: Never Married)					
Currently Married	0.0011	0.0128	0.08	0.933	-0.0241 – 0.0262
Previously Married	-0.0068	0.0223	-0.31	0.760	-0.0505 – 0.0369
Ln (household income)	-0.0097	0.0089	-1.09	0.277	-0.0271 – 0.0078

The negative and gradual link between the size of remittances and women's participation in the labour force can be understood through simple economic reasoning. As remittance income increases, households face less pressure to rely on multiple earners. This reflects the income effect, where higher non-labour income allows families to meet expenses without women working outside the home (Ademe Ayalew & Mohanty, 2022). Since many women in Pakistan, especially in rural areas, are employed in low-paying or physically demanding jobs, the added financial comfort from remittances reduces the need or desire to stay in the labour market. The reservation wage theory also explains this pattern: when household income rises, women's minimum acceptable wage increases, and if local job opportunities do not meet that level, they choose not to work. The steady drop in predicted participation—from 17 to 5 percentage points as remittances grow—fits neatly within this framework, showing how financial stability can gradually discourage market work.

Table 6. Predicted margins of remittances on labour participation.

Ln(remittances)	Margin	Std. Err.	z	P > z	[95% Conf. Interval]
8	0.1728 ***	0.0486	3.56	0.000	0.0776 – 0.2681
10	0.1283 ***	0.0216	5.94	0.000	0.0860 – 0.1706
12	0.0939 ***	0.0057	16.44	0.000	0.0827 – 0.1051
14	0.0681 ***	0.0083	8.20	0.000	0.0518 – 0.0843
16	0.0489 ***	0.0128	3.83	0.000	0.0239 – 0.0739

This pattern holds mainly in rural areas and in Khyber Pakhtunkhwa, where labour markets are limited and social norms still encourage women to prioritize household responsibilities. In these settings, larger remittance inflows strengthen the idea that women's role is to manage the home rather than seek paid employment. This effect is weaker or absent in urban areas and in provinces like Punjab and Sindh, where education levels are higher and women have better access to jobs. The result also connects to the bargaining power channel: when remittances are managed by male migrants or older family members, women often have less say in how the money is used, which further limits their economic independence. So while remittances improve living standards, they can also reinforce traditional gender roles, especially where social and market barriers already restrict women's work choices.

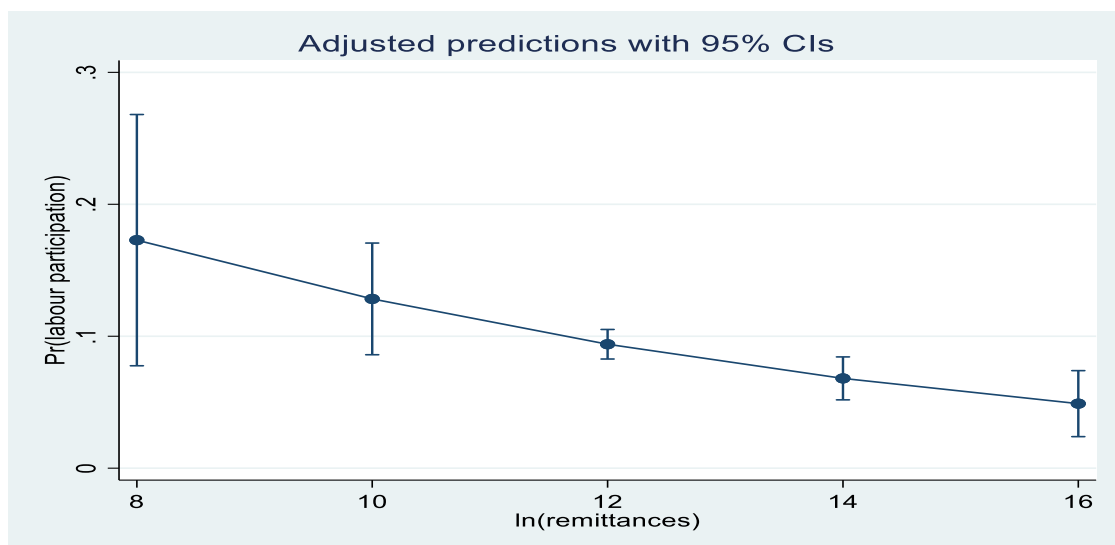


Figure 1. Predicted margins of remittances on labour participation.

In sum, the evidence from Table 5 demonstrates that, within remittance-receiving households, the scale of remittance income exerts a measurable and economically meaningful depressive effect on labour participation. This relationship reveals an intricate balance between income security and labour-market engagement—suggesting that while remittances enhance welfare, they may also reshape the incentive structure governing

household work decisions in Pakistan's evolving labour economy.

Table 7. Marginal effect of amount of remittances on labour participation across sub-sample.

Variable	Model 1: Rural	Model 2: Urban	Model 3: KPK	Model 4: Punjab	Model 5: Sindh
Ln(remittances)	-0.015 ** (0.006)	-0.008 (0.008)	-0.028 *** (0.010)	-0.009 (0.007)	0.049 (0.044)
Province: (Ref: Khyber Pakhtunkhwa)					
Punjab	0.060 *** (0.010)	0.084 *** (0.014)	0.022 (0.017)	—	—
Sindh	0.093 ** (0.037)	0.144 *** (0.035)	-0.002 (0.036)	—	—
Urban	-0.040 *** (0.010)	—	—	-0.034 *** (0.013)	-0.227 ** (0.094)
Age	0.001 (0.000)	0.000 (0.000)	0.001 (0.001)	0.001 * (0.001)	0.001 (0.003)
Education	0.003 ** (0.001)	-0.000 (0.001)	0.007 *** (0.002)	0.006 *** (0.001)	-0.004 (0.009)
Marital Status : (Ref: Never Married)					
Currently Married	0.001 (0.013)	0.037 ** (0.017)	-0.058 *** (0.018)	0.000 (0.014)	0.012 (0.103)
Previously Married	-0.007 (0.022)	0.015 (0.030)	-0.028 (0.032)	-0.018 (0.031)	0.132 (0.148)
Ln(household income)	-0.010 (0.009)	-0.019 * (0.011)	0.015 (0.015)	0.012 (0.010)	0.062 (0.079)
Observations	4,161	2,890	1,271	2,065	102

Conclusions

This study finds that international remittances reduce women's participation in Pakistan's labour market. Women in remittance-receiving households are 6–11 percentage points less likely to work than those in non-receiving households. The decline is strongest in rural areas and Khyber Pakhtunkhwa, where jobs are limited and gender norms restrict women's work, while weaker in urban areas, Punjab, and Sindh. Among receiving households, higher remittance inflows further lower participation, with predicted rates falling from 17 to 5 percent as remittances rise from 8 to 16 log points. These results reflect a strong income effect that reduces the need for women's earnings and reinforces traditional household roles, especially where formal jobs are scarce. The study shows that women in remittance-receiving households are less likely to work, but the reasons behind this need to be understood. Policymakers should identify whether this pattern results from social norms, limited job options, or household preferences. Women's participation is vital for inclusive growth, so efforts should aim to create pathways for their engagement. Although higher remittances improve financial security, they do not seem to encourage work, which suggests a missed opportunity. Linking remittance income with skills training, home-based enterprises, and women's involvement in financial decisions can help turn these inflows into tools for greater economic participation and empowerment.

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