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What works for her? How work-from-home digital jobs affect female labor force participation

Submission date
10/01/2023

Recruitment status
No longer recruiting

Registration date
26/02/2023

Overall study status
Completed

Last Edited
04/04/2024

Condition category
Other

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
With merely 23% of women in the labor force today in India, despite advances in education levels and workplace policies to support women, it remains puzzling why a high willingness to work does not translate to employment. Digital jobs – jobs women can perform using their smartphones – may have the potential to alleviate some of the constraints of female labor force participation today. This study aims to provide some of the first experimental evidence to show how providing newer digital job opportunities and paid work-from-home could increase female labor force participation in India. This study explores the large constraint of married women not having job opportunities they can access and work in and proposes a potential way to overcome it. The research observes how providing more suitable employment to women may change women's employment status and job performance, if at all, and the effects of this employment on women's overall agency, mental health, dignity, and social norms. Further, it comments on the discordance, if any, between husbands' and wives' perspectives on women's employment in these digital jobs. This study provides women with job opportunities at home (WfH) and outside the home (Work from Center or WfC) to understand the importance of the existing constraints affiliated with outside work. This study could also provide experimental evidence to show how social signaling of social norms between husband-wife pairs could change women's labor force participation in India.

Who can participate?
Women aged 18-45 years, married, living/residing in Slum Redeveloped colonies in Mumbai, with access to a smartphone, not doing full-time work already, and able to perform at least two out of three tasks provided as a screening test for ability.

What does the study involve?
Women are randomly allocated to be provided with job opportunities at home (WfH) or outside the home (Work from Center or WfC) with different wages to observe the difference in job take-up. The study will observe how providing more suitable employment to women may change women's employment status and job performance, if at all, and the effects of this employment on women's overall agency, mental health, dignity, and social norms. This study also tries to

further unravel the gender norms associated with women's work in contexts where they are the strongest (such as in South Asia). By also interviewing the husbands, the researchers will try to understand differences, if any, between husbands' and wives' perceptions on the social acceptability of these new jobs and the gender norm where married women are not permitted to work, particularly for jobs where they can more than just some pocket money. With the study findings, the researchers are also trying to find some suggestive evidence for the cost of complying with the gender norm of women not working, or the cost of preserving one's social dignity.

What are the possible benefits and risks of participating?
Women who participate receive a certificate of participation, and will also receive a job offer if they are in one of the allocated groups. They can earn between INR 5,000 to INR 24,000 depending on the treatment assigned. There are no direct risks of participating. Some women could find the short job duration uncomfortable and want a job for a longer duration, and with spillovers when women find others earning different amounts of money, it can create some confusion. While not very common since women are reluctant to share and discuss payment information with each other, in cases where this has been shared, the researchers are actively supporting the women to resolve any questions that have arisen and explained to them again about the research project.

Where is the study run from?
Stanford University (USA)

When is the study starting and how long is it expected to run for?
May 2021 to April 2023

Who is funding the study?
1. MIT Solve
2. Agency Fund
3. Weiss Fund for Development Economics
4. King Center of Global Poverty and Development

Who is the main contact?
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Contact information

Type(s)
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Additional identifiers

Protocol serial number
56784

Study information

Scientific Title
Among slum women in India, what is the effect of providing digital jobs on female labor force participation rates, and subsequent well-being, mental health, social norms and agency indicators within a few months?

Study objectives
This study looks at the effects of employment on the digital jobs platform on empowerment, health and well-being indicators. With the numerous costs for women associated with work outside the home and far from home, work-from-home (or close to home) opportunities that pay reasonably well could lead to multiple changes in terms of women's economic and social returns.
1. Mental health: expect to see improvements in tension with more financial security
1.1. PHQ-9 scale (using the first 8 measures)
1.2. Tension or stress measure
2. Women's agency: expect increased agency at home
2.1. Financial independence: allowed to purchase items without asking permission; have own bank account; savings in the last 2 months; asset ownership
2.2. Mobility: allowed to visit any place using public transport; visit friends without permission
2.3. Autonomy: household decision-maker, feeling unsafe while working outside, feeling comfortable working with men at work; can pursue a career of choice
2.4. Social network: number of women on floor regularly speak to
3. Social norms: expect a shift in social norms
3.1. Women's job-related perceptions (within household): husband and in-laws's perceptions of her working outside the house or at home; whether women in family are allowed to work; proportion of people in the household who think it is right for women to work for income; reasons stopped working after marriage; types of work not permitted by husband; perceived economic value of herself
3.2. Women's job-related perceptions (outside the household): the proportion of neighbors who think it is right for women to work for income; the proportion of women neighbors working
3.3. Women's economic value or income earning potential (husband's perception): after seeing their wives work, their (updated) beliefs on women's economic value
3.4. Domestic violence: if she goes against her husband then he will shout or beat her; perceptions around whether domestic violence would increase or decrease when a woman first starts to earn money
4. Dignity: expect higher levels of dignity
4.1. Capabilities: can manage household and job together, husband's perceptions on capabilities
4.2. Insecurities: worried if started to earn more than husband; worried about husband/in-laws perceptions about earning more
4.3. Respect: how much the family respects her
4.4. Well-being: expect greater well-being
4.5. Hope and confidence: level of confidence in being able to do a job; other well-being measures

5. Aspirations: aspirational household income; type of skills to learn and career to pursue
6. Time-use: to see which aspects of the daily schedule have changed as a result of this job, and whether others in the family share the household chores

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 09/05/2021, Stanford University Institutional Review Board (Stanford University, Stanford, CA 94305, USA; +1 (0)650 723 5215, +1 (0)650 725 8013; Andrea.Horwege@stanford.edu), ref: 56784, IRB 8 (Registration 6208)

Primary study design
Interventional

Study design
Randomized controlled trial

Study type(s)
Quality of life

Health condition(s) or problem(s) studied
Mental health and overall well-being indicators.

Interventions
Participants are randomly assigned at the household level to one of the seven arms (six treatment and one control). The random assignment is stratified by area and education level of the women. The baseline survey is administered after the random assignment, and the job intervention is offered at the end of the baseline survey according to the treatment. The control arm does not receive any job intervention. The job intervention is a digital job that is provided to women via a Rani Job platform for 1.5 to 2 months per woman in the treatment groups. The endline survey is then conducted after the job intervention is completed for all workers (whether or not they worked in the job) for both treatment and control groups.

The total sample includes 3,700-3,800 women, out of which 500-550 are in the control arm. The rest, around 3,100-3,200, are assigned to one of the six treatments. This sample size is contingent on the budget being sufficient. If for any reason the researchers are not able to afford this larger sample size, they will re-do the power calculations to do this study with a smaller sample size. 50% of the households (in both treatment and control groups) are also offered a “husband survey”, which is described in more detail below. All the centers in the WfC arms are local, where women can walk to the center in 5-15 minutes located within their community. So, many of the usual "outside costs" of women's work are either very limited or do not exist. Hence, we see the WfC as a ``social signal" of the woman's work, while WfH is private.

Arm 1: Work-from-Home & Pocket Money (WfH P)
In this arm, workers are offered a job contract where they work from home on their own smartphones on the Rani mobile application. Further, their payments are low enough for the money to not be a significant fraction of a household’s income, but rather serve as pocket money for the women. Payments are made weekly, and women can earn up to 4-5k INR per month.

Arm 2: Work-from-Home & Contributor (WfH C)
In this arm, workers are offered a job contract where they work from home on their own smartphones on the Rani mobile application. Further, their payments are sufficient for the money to be a significant fraction of a household's income, but not high enough to run the household. Payments are made weekly, and women can earn up to 12k INR per month.

Arm 3: Work-from-Home & Breadwinner (WfH B)
In this arm, workers are offered a job contract where they work from home on their own smartphones on the Rani mobile application. Further, their payments are high enough for the money to even run the household. Payments are made weekly, and women can earn up to 24-25k INR per month.

Arm 4: Work-from-Center & Pocket Money (WfC P)
In this arm, workers are offered a job contract where they work from a local digital job center on their own smartphones on the Rani mobile application. Further, their payments are low enough for the money to not be a significant fraction of a household's income, but rather serve as pocket money for the women. Payments are made weekly, and women can earn up to 4-5k INR per month.

Arm 5: Work-from-Center & Contributor (WfC C)
In this arm, workers are offered a job contract where they work from a local digital job center on their own smartphones on the Rani mobile application. Further, their payments are sufficient for the money to be a significant fraction of a household's income, but not high enough to run the household. Payments are made weekly, and women can earn up to 12k INR per month.

Arm 6: Work-from-Center & Breadwinner (WfC B)
In this arm, workers are offered a job contract where they work from a local digital job center on their own smartphones on the Rani mobile application. Further, their payments are high enough for the money to even run the household. Payments are made weekly, and women can earn up to 24-25k INR per month.

Arm 7: Control
In this arm, women are not offered any job contract at the end of the baseline survey.

Husband Survey Offer
All households have a baseline survey completed with the eligible women in the study. At the end of the survey, women are offered a job contract. The job contract includes details about the job task, payment details, and the location of the job. For a proportion of women, they are also told that this job contract information will be informed to their husbands through another survey conducted by a male enumerator. A random subset of the control arm also receives the husband survey. Women are then asked whether they accept the job contract.

Intervention Type
Behavioural

Primary outcome(s)
1. Job take-up rates are measured by observing whether women are actually completing tasks on the Rani platform (more than 0 tasks, and more than 10 tasks) right after the baseline survey. The researchers also measure job take-up during the two baseline surveys where they ask women to self-report whether they are accepting or rejecting the job.
2. Mental health indicators are measured using the Patient Health Questionnaire-9 (PHQ-9) scale (using the first eight measures), and a tension/stress scale developed for this context measured

at baseline, and endline (after 2-3 months from baseline)
3. Agency and empowerment outcomes are measured using a combination of indices measured at baseline and then at endline 2-3 months from baseline using various Likert scales:
3.1. Women's agency and decision-making at home (within household measures, and being able to pursue career of own choice, restrictions in ability to work). These also include measures around women's estimated economic value for how much women should be paid for doing housework in their own house (economic value of a woman, as measured by women and their husbands), and domestic violence metrics (whether a woman believes if she goes against her husband, then he will shout at or beat her, and whether domestic violence increases/decreases when a woman first starts to earn money)
3.2. Financial independence measured by having own bank account under own name and savings
3.3. Mobility (being allowed to visit places using public transport)
3.4. Social network (number of women on the floor/building who she regularly speaks to)
3.5. Confidence measured as level of confidence in being able to do a job
3.6. Aspirations measured by aspirational income level and how different it is from their actual income level

Key secondary outcome(s)
1. Job retention rates are measured by the number of women in each treatment arm who work for >500 tasks, >5,000 tasks, >10,000 tasks, and completed all 15,000 tasks on the platform during the job intervention duration
2. Social norms measured at baseline and then at endline 2-3 months from baseline using a Likert scale:
2.1. Changes in perceptions of women working/not working, perceptions of others' perceptions of women's work, changes in decision to work after not being able to work
2.2. Dignity: where a woman's self-worth and family's image lie in a woman following social norms
2.3. Capabilities: whether a woman thinks she can manage a household and a job together
2.4. Insecurities: whether a woman would be worried if she started to earn more than her husband
3. Time use is measured at baseline and then at endline 2-3 months from baseline where women are asked how they spend the different hours of the day working and doing other household chores during the day

Completion date
04/04/2023

Eligibility

Key inclusion criteria
Women are eligible for this study if they are:
1. Married
2. Between 18-45 years old
3. Own a smartphone or have access to one for many hours a day
4. Able to correctly complete at least two out of three Rani Job tasks
5. Living with their husbands (not in their maternal homes)
6. Living in either a slum or a slum redeveloped colony
7. Is not working for more than 20 hours a week already
8. Did not have another woman living in the same house also enrolled in this study

The researchers also survey 50% of their husbands

Participant type(s)
Other

Healthy volunteers allowed
No

Age group
Adult

Lower age limit
18 Years

Upper age limit
45 Years

Sex
All

Key exclusion criteria
Does not meet the inclusion criteria

Date of first enrolment
01/10/2022

Date of final enrolment
01/03/2023

Locations

Countries of recruitment
India

Study participating centre
Myna Mahila Foundation
10/11 Building No. 34 A GM Link Road Govandi (W)
Natvar Parekh Compound
Shivaji Nagar
Mumbai
India
400043

Sponsor information

Organisation

Stanford University

ROR
https://ror.org/00f54p054

Funder(s)

Funder type
Charity

Funder Name
Weiss Fund for Development Economics

Funder Name
Agency Fund

Funder Name
MIT Solve

Funder Name
King Center for Global Development

Results and Publications

Individual participant data (IPD) sharing plan
The data-sharing plans for the current study are unknown and will be made available at a later date

IPD sharing plan summary
Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		27/03/2024	04/04/2024	Yes	No