



# DATA FOR DEVELOPMENT

## India Human Development Survey Forum | October 2024

A monthly update of socio-economic developments in India by the IHDS research community.

### Who has Information and Communications Technology Access in India? A Gender-based Analysis

-Ritika Jain



The paper examines the determinants of India's information and communications technology (ICT) access. We use the second wave of the India Human Development Survey (IHDS) of 2011–2012, a nationally representative survey at the individual level, and find that ICT ownership and usage are abysmally low for women compared to men. Using probit and sample selection models to capture determinants of ICT access, we find women are disadvantaged in owning and using ICT systems. By re-estimating our models separately for

men and women, we find that marriage has an opposite effect on the two genders—it has a positive impact on men owning and using ICT systems and a negative effect on women. As an extension, we also find that networks strongly influence ICT access. While social networks improve the probability of owning ICT devices for women, political connections enhance the propensity to use ICTs for men.



Table 1. Means test for ICT ownership and ICT usage

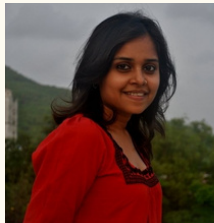
|                 | ICT Ownership |       |           | ICT Usage |       |           |
|-----------------|---------------|-------|-----------|-----------|-------|-----------|
|                 | (=1)          | (=0)  | Diff      | (=1)      | (=0)  | Diff      |
| <b>Female</b>   | 0.430         | 0.735 | -0.304*** | 0.184     | 0.373 | -0.189*** |
| <b>Marriage</b> | 0.562         | 0.622 | -0.060*** | 0.212     | 0.438 | -0.225*** |
| <b>Employed</b> | 0.628         | 0.510 | 0.118***  | 0.287     | 0.269 | 0.017***  |
| <b>Urban</b>    | 0.692         | 0.515 | 0.177***  | 0.403     | 0.204 | 0.199***  |

**Note:** (=1) denotes when the categorical variables take a unit value and (=0) denotes when the variables take a zero value. Diff denotes the difference between the two groups. \*, \*\* and \*\*\* denotes significance at 10, 5 and 1% respectively.

Source: Author's calculation from IHDS

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## About the Authors



### Ritika Jain

Ritika Jain is an Assistant Professor at the Centre for Development Studies (CDS), Thiruvananthapuram and adjunct faculty at the IIM, Kozhikode. She holds Masters and PhD degrees in Economics from IGIDR, Mumbai. Her research interests lie in the areas of industry and labour. She was the recipient of the recent CDS Prize for the best performing Assistant Professor.

## Equal Work, Unequal Pay: Gender Wage Discrimination in India

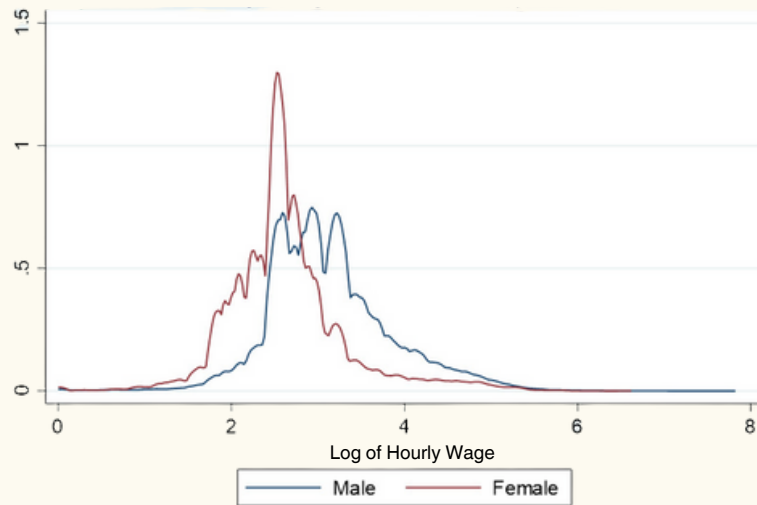
-Arz Taneja, Rachel Batra

The research paper investigates gender wage discrimination in India using data from the nationally representative Indian Human Development Survey round I (IHDS 2004-05) and round II (IHDS 2011-12). We examine the gender wage gap in the country across rural and urban areas separately as well as at an aggregate level. Controlling for financial and household characteristics, we employ a modified Mincer regression for men and women. We then breakdown the wage differential into explainable and unexplainable components using the Blinder–Oaxaca



methodology. We find that education and experience significantly influence wages across genders in both rural and urban areas, while their effect is more prominent in urban areas. Through the decomposition analysis, we find that although the log wage differential decreased between 2005 and 2011, this reduction is overshadowed by a larger portion of the differential being attributed to different treatment of the same skills, indicative of potential discrimination

Figure 1. Hourly Wage Distribution by Gender



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## About the Authors



### Arz Taneja

Arz is a Management Consulting Associate at Accenture Strategy & Consulting, India. She is an Economics graduate from St. Stephen's College, University of Delhi. Her research interests lie at the intersection of behavioural and developmental economics, with a focus on gender economics and sustainability.



### Rachel Batra

Rachel is an Associate Analyst at Salesforce and an Economics graduate from St. Stephen's College, Delhi University. Her research interests include gender wage discrimination, institutional economics, development economics, and the socio-economic impacts of environmental policies



## Publications List

### Recent Publications using IHDS Data

Barik, N., & Padhi, P. (2024). The Determinants of Household Cooking Fuel Transition: Evidence from Rural India. *Environment, Development and Sustainability*. [Link](#)

Biswas, S., & Jain, R. (2024). Problem of the Plenty-Ethnic Fractionalization and Female Employment in Rural India. *Journal of Quantitative Economics*. [Link](#)

Chakraborty, P., Chopra, A., & Contractor, L. (2024). The Equilibrium Impact of Agricultural Support Prices and Input Subsidies. Ashoka University, Economics Discussion Paper no.123. [Link](#)

Hussain, Y. R., & Mukhopadhyay, P. (2024). Impact of Natural Disasters on Educational Attainment in India: A Panel Data Analysis. *Discover Sustainability*, 5(279). [Link](#)

Mahal, A., Karan, A., Ishida, M., Soji, F., Hussain, S., Varughese, S., Grills, N., Dhariyal, T., & Bonyhady, B. (2024). The Earnings and Conversion Gaps for Persons with Disabilities: Evidence from India. NCAER Working Paper no.175. [Link](#)

Parwez, S. (2024). Formal-Informal Dichotomy of Work in India. *World Economics*, 25(3), 2-19. [Link](#)

Rashmi, R., & Paul, R. (2024). Insights on Poverty-based Inequality in Old-age Mortality in India. *Discover Public Health*, 21(110). [Link](#)

Siddharth. (2024). Prevention is Better than Cure: Old-Age Pension and Healthcare Utilization in India. Master Thesis. Erasmus School of Economics. Erasmus University Rotterdam. [Link](#)

Shukla, S. S., & Bhattacharya, K. (2024). Determinants of Violence in India: Role of Economic and Ethnic Factors. *The Indian Economic Journal*. [Link](#)

## About IHDS

The India Human Development Survey (IHDS) began as a nationally representative, multi topic survey of 41,554 households in 1,503 villages and 971 urban neighborhoods across India. The first round of interviews were completed in 2004-05; Data is publicly available via ICPSR. The second round re-interviewed most of these households in 2011-12 (N=42,152) and data for the same is available via ICPSR. Fieldwork for IHDS 3 was undertaken in 2022-24 and data is currently being cleaned and processed.

IHDS 3 has been jointly conducted by researchers from the University of Maryland, the National Council of Applied Economic Research, Indiana University and University of Michigan.

## IHDS Principal Investigators

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