

Browsers Don't Lie.

Investigating the gendered effects of the Covid-19 lockdowns in developing economies using browser data.

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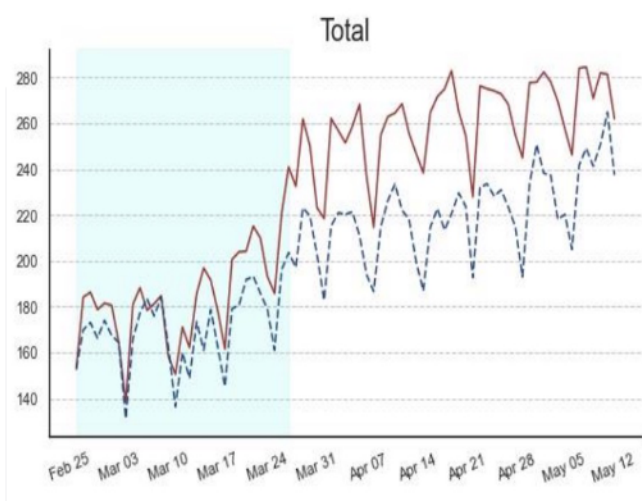


Online browsing data reveals that Covid-19 lockdown exacerbates the gender parity.

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Topic at a Glance

We measure the digital impact of the Indian COVID-19 lockdown using an online survey coupled with consensually provided browser history records from over 1,000 individuals, spanning over 30 million website visits. Browser histories provide us with rich and objective historical time use information that we collected without access to the extensive in-depth and in-person questioning, involving multiple time windows (e.g., past day/week/month), typically required for verification and validation in time-use surveys, while also avoiding the measurement problems of recall bias and misreporting in subjective reports.



Caption: Both men and women increase their online time during the lockdown (Y-axis measured in minutes). However, women's online time use (blue) faces a sizable and significant decline relative to men (red) during lockdown across variety of measures.

New Insights

We measure the digital impact of the initial Indian COVID-19 lockdown using an online survey coupled with consensually provided browser history records from over 1,000 individuals, spanning over 30 million website visits. Both men and women in our sample dramatically increased their internet activity during the lockdown, which reflects the heightened importance of digital access, but men's activity increased by significantly more. Gender differences are present overall and for key categories including leisure, production, video streaming and social media. The lockdown also saw a significant reduction in women's online job search, alongside a significant increase in men's, with larger effects among likely job seekers, indicating potentially persistent harm to women's employment. We find the relative decline for women particularly in the leisure domain, is concentrated among parents. This suggests that a source may be that the lockdown disproportionately exacerbated the caretaking burdens on women. However, this was not detected in our time-use survey on childcare time, where men self-reported relatively larger increases in time spent caring for children than women did. The pattern in self-reports is also not echoed in reports from spouses or in objective data on child-related internet browsing, suggesting that self-reports may be unreliable because of the subjective aspects of responses to simple time use questions about childcare time. With increasing availability of objective digital trace data and development of machine learning methods that enable highly granular measures, similar cross-validation of survey data may become common.

Policy Recommendations

In addition to providing evidence on how the immediate effects of the initial COVID-19 lockdown in India differed by gender, our results also have implications for employers and organizations that seek to attract and retain female talent. Two of our findings suggest additional challenges coming from lower labor force attachment among women without full-time jobs. The first is the relative decline in online production time use for those women compared to similar men. The second is the decrease in women's online job seeking activity, both absolutely

and relative to men. These outcomes may be directly observable to employers who observe work time and job applications. Our third finding, for full time working women, is less directly visible. These women maintained their productive time online, relative to men, but they experienced significant relative drops in on-line leisure time. This occurred while in-person leisure activities were largely proscribed and may have long term consequences, such as burnout, that drive some women to leave their jobs. The finding suggests that employers could benefit from investing proactively in inquiring about and supporting the mental health and work-life balance challenges of their workers, in addition to efforts and programs developed in response to the pandemic to expand opportunities for remote and flexible work. That women did not fall behind in human capital development suggests that they continued to aspire towards career advancement despite the setbacks the pandemic caused, a positive outlook that employers and governments could benefit from nurturing.

Limitations

The study analyses detailed browser data combined with a survey. This makes the data collection relatively more expensive. Therefore, the scale of this study is relatively smaller. The sample is also unlikely to represent the entire population because individuals self-select into the study and they also need to own a PC.

Read more → g2lm-lic.iza.org/projects/covid-19/gender-differences-in-the-effects-of-the-great-lockdownon-time-use/

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