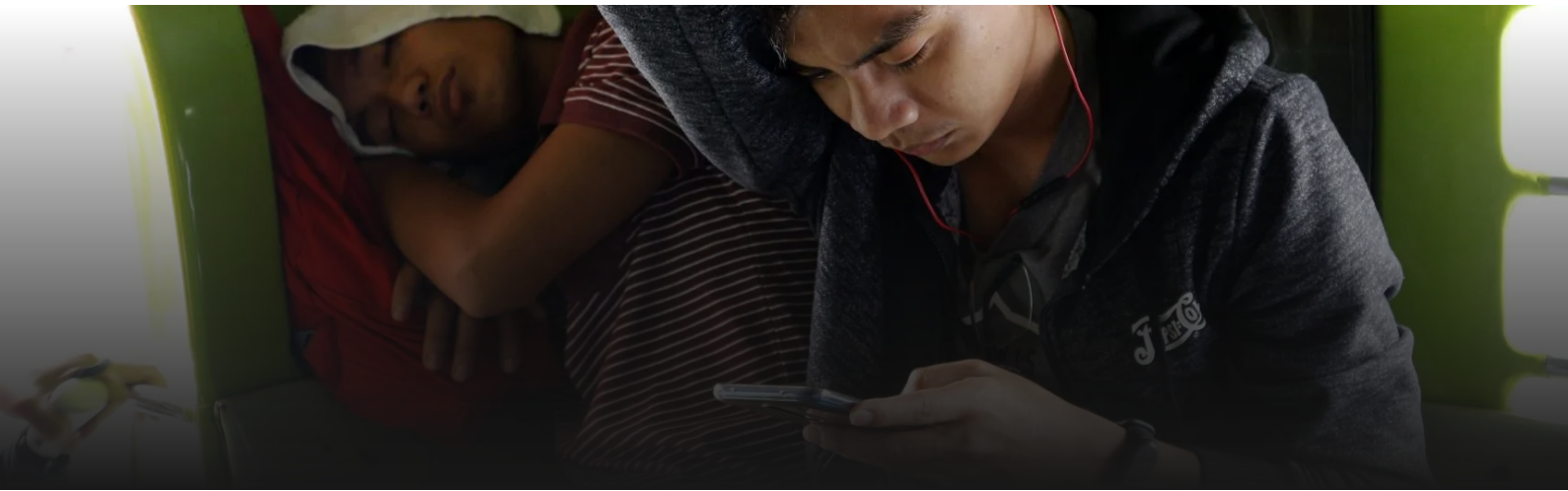




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Mobile internet access is exacerbating household wealth inequality in the Philippines

Mobile connectivity can have a positive economic impact on jobs and incomes. But how does it shape household wealth inequality? Zhiwu Wei, Neil Lee and Yohan Iddawela investigate. The Philippines serves as the ideal case study: it has seen a huge uptake in connectivity in recent years, while its 7000+ islands make physical connectivity costly, meaning the internet is often the dominant bridge to markets, services and opportunities.

There has been a rapid expansion in internet availability and usage across the developing world. As internet use has become increasingly common, mobile phones have become the dominant mode of access, particularly among low-income households. Mobile internet use has had profound economic consequences, with studies in multiple contexts documenting significant impacts on **labour markets** and **household welfare**.

The link between mobile internet access and household wealth inequality, however, remains complex and contested. Mobile networks and modern ICTs can narrow the wealth gap by extending economic activities to remote regions and creating jobs for disadvantaged groups, spawning short-video creators and e-commerce vendors in the process. On the other hand, the gains from going online are rarely shared evenly. A growing body of evidence points to the “skill-complementary” nature of digital technologies: **high-skilled workers are better positioned** to exploit the internet, thus capturing far larger **productivity premiums** than their low-skilled counterparts.

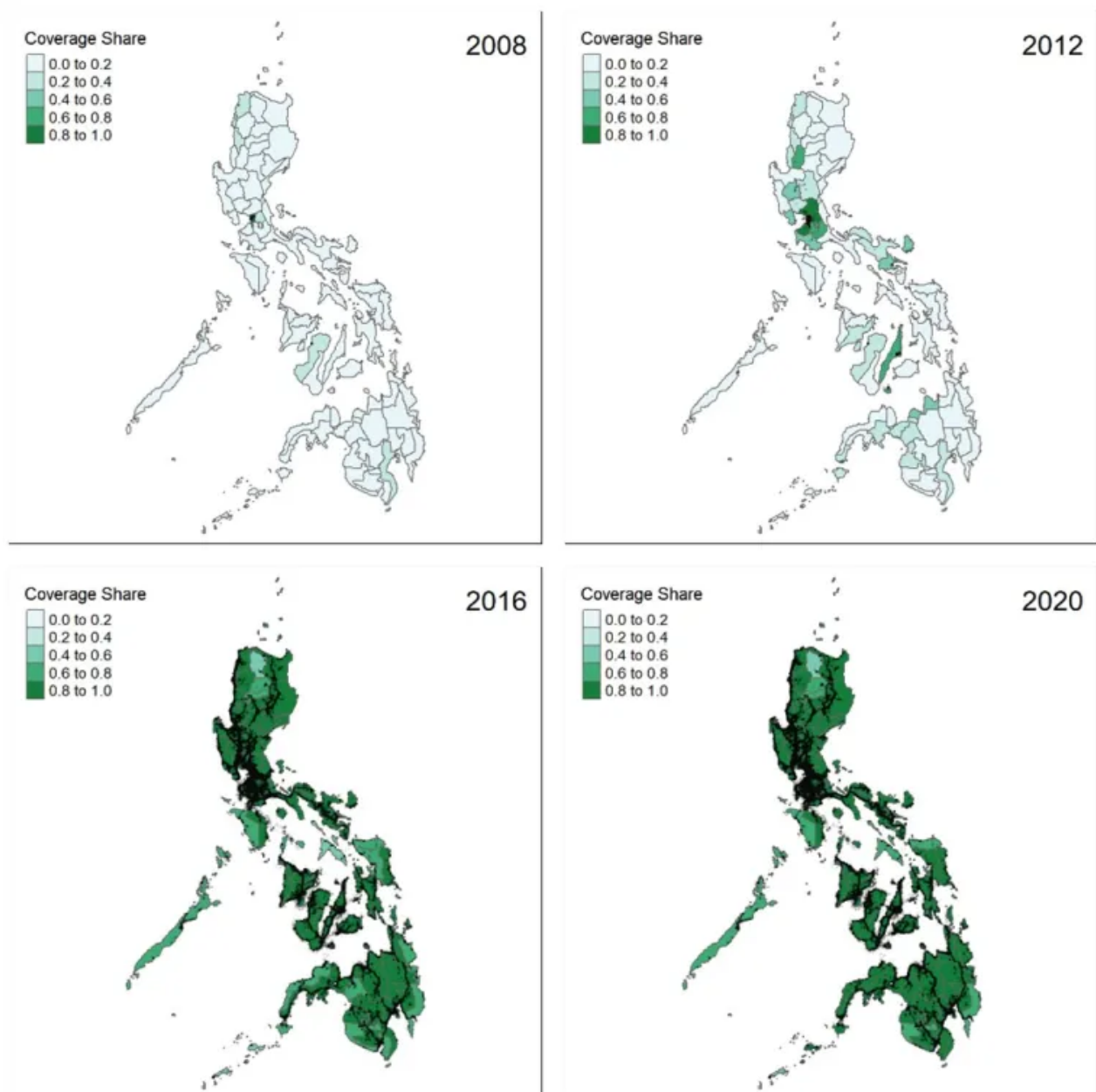
Our latest research examines these dynamics in the Philippines. Like many middle-income countries, the Philippines experienced a late but explosive uptake in digital connectivity only in recent years. Internet penetration hovered at just 25% in 2010 and climbed to 45% by 2019, before surging to roughly 84% by 2023, according to the **World Bank**. What’s more, since the Philippines’ 7000-plus islands make physical connectivity costly, the internet is often the dominant bridge to

markets, services, and opportunities. The Philippines therefore provides the perfect context for studying how internet access shapes household wealth inequality.

Mobile connectivity in the Philippines: who has benefitted most?

We draw on 0.27 million geocoded cell towers to measure mobile internet connectivity and examine its impact. Figure 1 maps the cell towers' spatial diffusion with four snapshots taken in 2008, 2012, 2016 and 2020. Early rollouts clustered in core urban areas, particularly Manila. However, since 2016, cell towers have expanded to cover a wide range of the country, and by this stage, cell tower deployment was no longer broadly focused on wealthier or more populous areas but was likely aimed at achieving "last-mile" coverage.

Figure 1: Mobile Internet Coverage across the Philippines

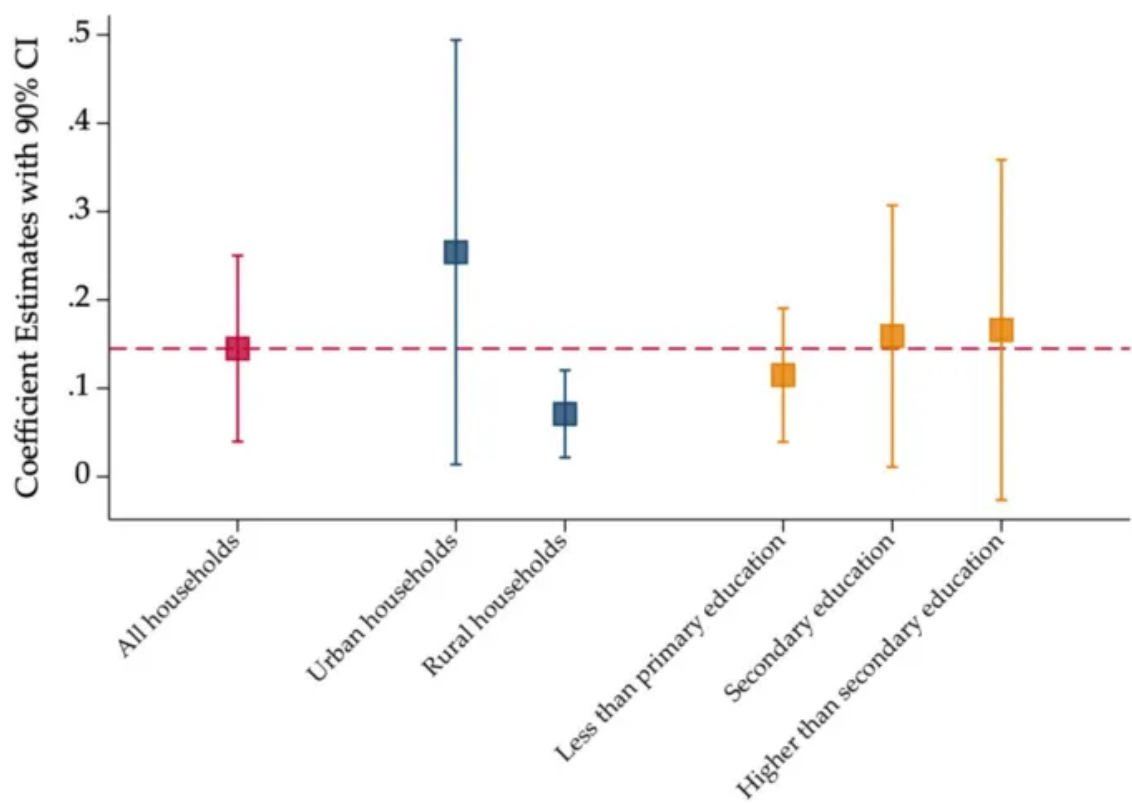


Notes: This figure illustrates the spatial distribution of cell towers (represented by black dots) and the proportion of population covered by mobile internet across provinces in the Philippines.

Figure 2 summarises our core findings; see our [Working Paper](#) for details of our methodology.^[1] We find that over the medium to long run, the arrival of a mobile signal significantly raises household wealth, measured by a comprehensive [wealth index](#) that captures a broad range of asset ownership. The gains are felt in cities and villages alike and persist after we stratify the sample by educational attainment. But they are not distributed uniformly. Urban households, especially those in medium-sized cities and towns, capture substantially larger wealth increments than their rural counterparts, and the effect strengthens gradually with schooling.

In short, these findings suggest that everyone benefits from mobile internet, but the already better-placed benefit disproportionately more, so mobile internet access widens the urban-rural wealth gap and magnifies inequality across educational lines. These findings can inform policies that could bridge the [digital divide](#) and promote [inclusive economic growth](#) (see below).

Figure 2: Impact of Mobile Internet Connectivity on Household Wealth



Notes: This figure presents coefficient estimates and 90% confidence intervals for the effect of mobile internet connectivity on household wealth. The sample is stratified by spatial and educational dimensions.

What about the benefits that connectivity brings for women? We evaluate the impact of mobile internet connectivity on female employment, and find that females are more likely to be employed – either recently or during the 12 months prior to the survey interview – in areas with higher levels of mobile internet exposure. Looking at the employment mode, our results show a positive association

between mobile internet connectivity and seasonal and occasional employment among women, while year-round employment is negatively associated. This pattern suggests that mobile internet may enable more flexible work arrangements for female workers.

Given that only 50 percent of women are currently employed in the Philippines, these findings underscore the need for targeted interventions – such as digital literacy programs, childcare support, and skill-building initiatives – to help women fully capitalise on the economic opportunities enabled by internet access.

Policy suggestions: Towards a “digital equity” framework?

The findings of our study carry several implications for policymakers seeking to leverage mobile internet access as a tool for inclusive economic development. While the expansion of internet infrastructure is important, this research highlights the need for targeted, context-specific interventions to ensure equitable benefits across geographic and demographic divides. Here, we note some key policy recommendations that follow from our analysis.

First, the significant positive impact of internet access on household wealth in rural areas highlights the need for continued investment in digital infrastructure in these regions.

Second, investing in digital literacy and skills development should be a priority. The significant benefits of internet access for lower-educated households indicate its potential to uplift marginalised groups. However, digital literacy remains a bottleneck in realising these gains. Policymakers could establish programs that provide foundational digital skills training, particularly in rural areas. Collaborations with the private sector and nongovernment organisations could help **scale such initiatives** effectively. Moreover, vocational training programs that integrate digital tools and focus on equipping workers with skills for remote or gig economy jobs could further enhance the economic returns from internet access.

Third, structural barriers to female employment should be addressed. Policymakers could complement internet rollout with targeted programs that address gender-specific challenges, such as limited childcare availability, unequal access to digital skills training, and **cultural norms** that restrict female workforce participation.

Finally, and perhaps most generally, policymakers should look to ensure equitable access across regions and demographics. The uneven benefits of internet access, particularly for households with higher education or in **urban areas**, highlight the risk of widening inequalities if rollout strategies are not carefully designed. Policymakers should adopt a “digital equity” framework, ensuring that internet investments prioritise disadvantaged regions and populations. Mechanisms such as targeted subsidies, public–private partnerships, and community-driven internet access projects could help bridge these gaps.

To sum up, with the right policies in place, mobile connectivity has the potential to serve as a powerful equaliser. Without deliberate efforts to close digital divides, however, expanding internet access alone risks deepening existing social and economic inequalities.

*[1] One methodological issue relates to which way the causality runs: mobile internet access may boost household wealth, but on the flipside, wealthier communities and metropolitan urban centres might be more successful in attracting public investments in internet infrastructure. To get around this problem, we use a novel **instrumental variable** based on proximity of households to submarine cable landing points. For more details, see [Wei et al \(2025\)](#).*

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