



How has the internet connectivity changed in the UK from 2015 to 2025?

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Introduction

Internet access has become central to work, education and public services in the United Kingdom since 2015. Government policy has framed the "digital divide" largely as a coverage problem. Hollman, Obermier and Burger (2021) and Oughton et al. (2021) argue that urban areas benefit from faster, cheaper and more reliable information and communication technologies (ICT) while rural regions lag in service quality, not just availability (Oxford Analytica, 2023; Ofcom, 2025). This research aims to explore whether the UK digital divide has closed between 2015 and 2025, or whether it has shifted from an access gap to a performance and regional-quality gap. Understanding whether the divide is truly closing, or simply changing shape, is essential for targeting future infrastructure investment.

Methodology

Data Collection Method:

- Secondary data

Data Sources:

- Ofcom Connected Nations Reports (2015–2025)
- House of Commons Library Broadband Statistics

Hypothesis Tests:

- Simple linear regression.
- Correlation coefficient.

Findings

Finding 1: The urban–rural connection gap is significant, but coverage converges while performance diverges

H_0 : There is no significant correlation between year and the urban–rural median download speed gap.

H_1 : There is a significant positive correlation between year and the urban–rural median download speed gap.

$$r(9) = .881, p = .015$$

A strong positive correlation was found between year and the urban–rural median download speed gap. Because $p = .015 < .05$, the result is statistically significant, so we reject H_0 and accept H_1 . As shown in Figure 1, the gap widened from 22 Mbit/s in 2015 to 190 Mbit/s in 2025, even though rural FTTP coverage rose from under 5% to over 60%. This supports Oughton et al. (2021), who argue that coverage convergence does not equal performance convergence: rural premises are increasingly connected, but to lower-tier services, producing a widening quality divide alongside a shrinking access divide.

Urban-rural performance gap from 2015 to 2025

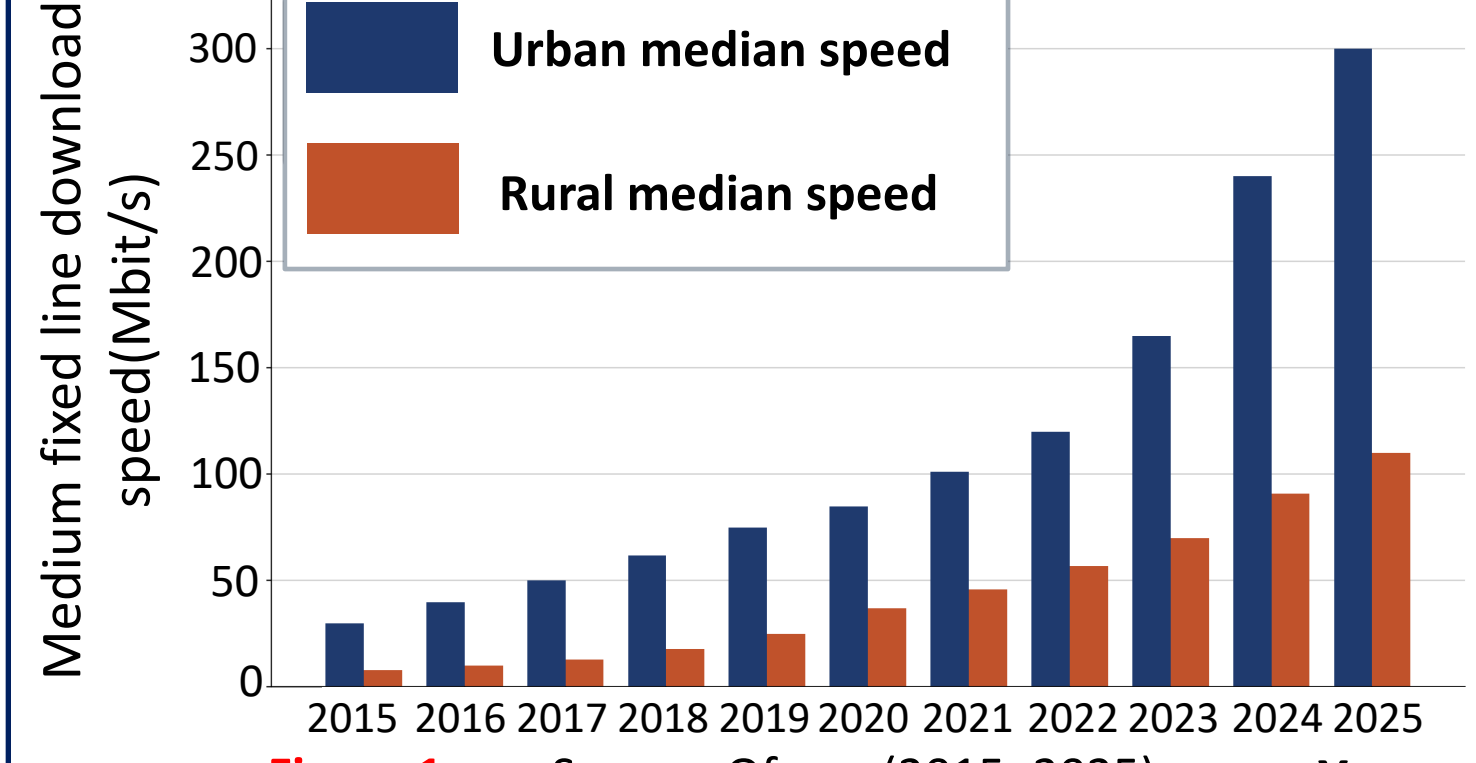


Figure 1 Source: Ofcom (2015–2025) Year

Finding 2: Full-fibre (FTTP) availability did not differ significantly between UK nations across 2015–2025

H_0 : There is no significant correlation between year and between-nation variation in FTTP availability.

H_1 : There is a significant correlation between year and between-nation variation in FTTP availability.

$$r(9) = .548, p = .081$$

A moderate positive correlation was found between year and the between-nation variation in FTTP coverage (measured as the spread across the four UK nations). Because $p = .081 > .05$, the result is not statistically significant, so we accept H_0 . There is not enough evidence to conclude that disparity in FTTP availability between the four UK nations changed significantly across the full 2015–2025 period.

Findings

However, the trajectory diverges from 2020 onward: Northern Ireland reached 95% by 2025, while Scotland lagged at 71% (Figure 2). The House of Commons Library (2024) attributes this to nation-specific rural fibre investment schemes that accelerated FTTP rollout in Northern Ireland. This supports Hollman et al. (2021), who argue that national aggregates mask regional inequality.

Full-fibre rollout by UK nation from 2015 to 2025

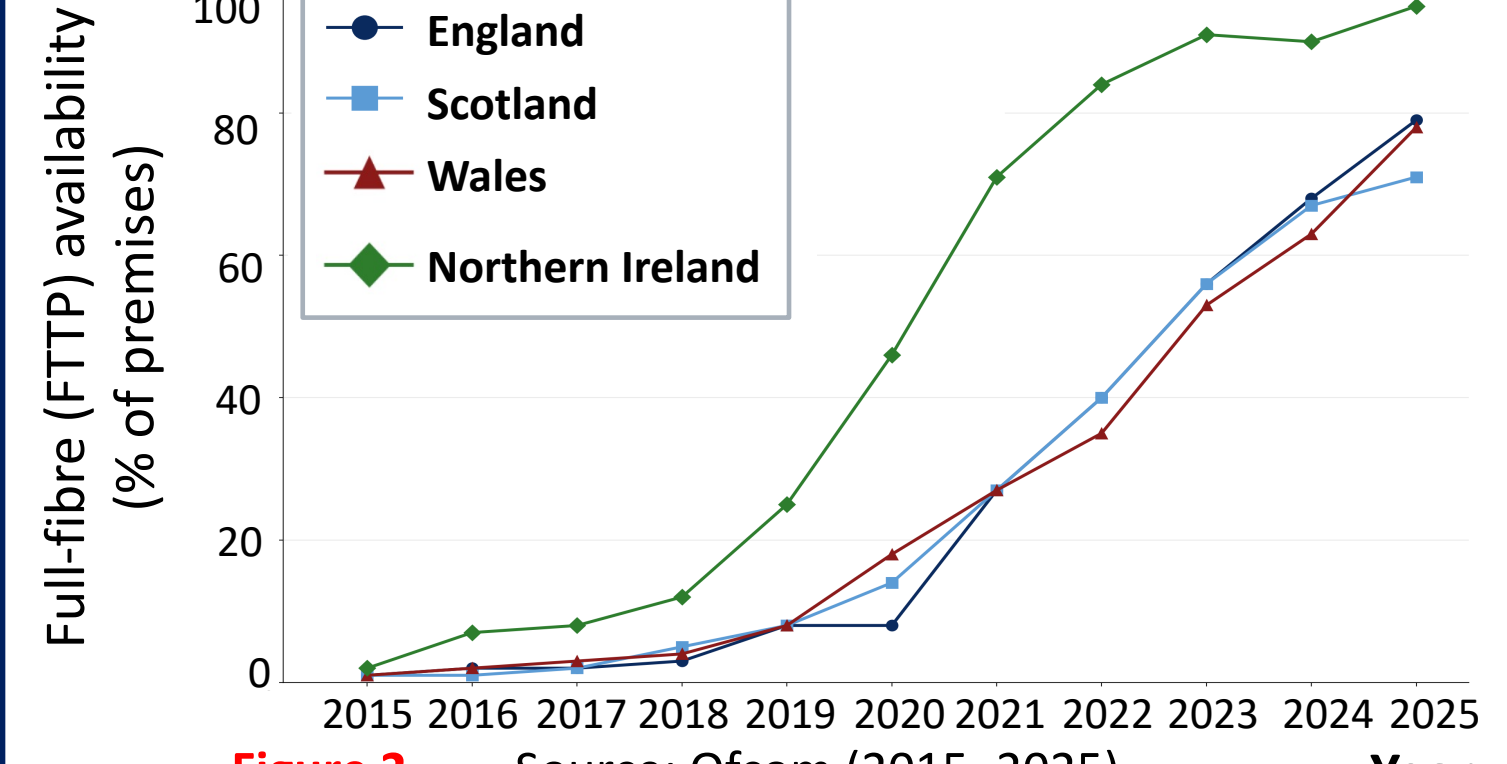


Figure 2 Source: Ofcom (2015–2025) Year

Finding 3: UK average download speed increased significantly from 2015 to 2025

Although UK average download speed fluctuated slightly between 2020 and 2021 due to the COVID-19 pandemic, there has been a consistent upward trend in speed as shown in Figure 3. This is supported by the Ofcom Connected Nations reports (2015–2025). The data show a steady increase from 28.9 Mbit/s in 2015 to 285 Mbit/s in 2025, with the sharpest acceleration occurring after 2022 when FTTP rollout expanded nationwide. This is consistent with Oughton et al. (2021), who predicted an S-curve growth pattern as fibre infrastructure reaches median households.

UK average fixed-line download speed from 2015 to 2025

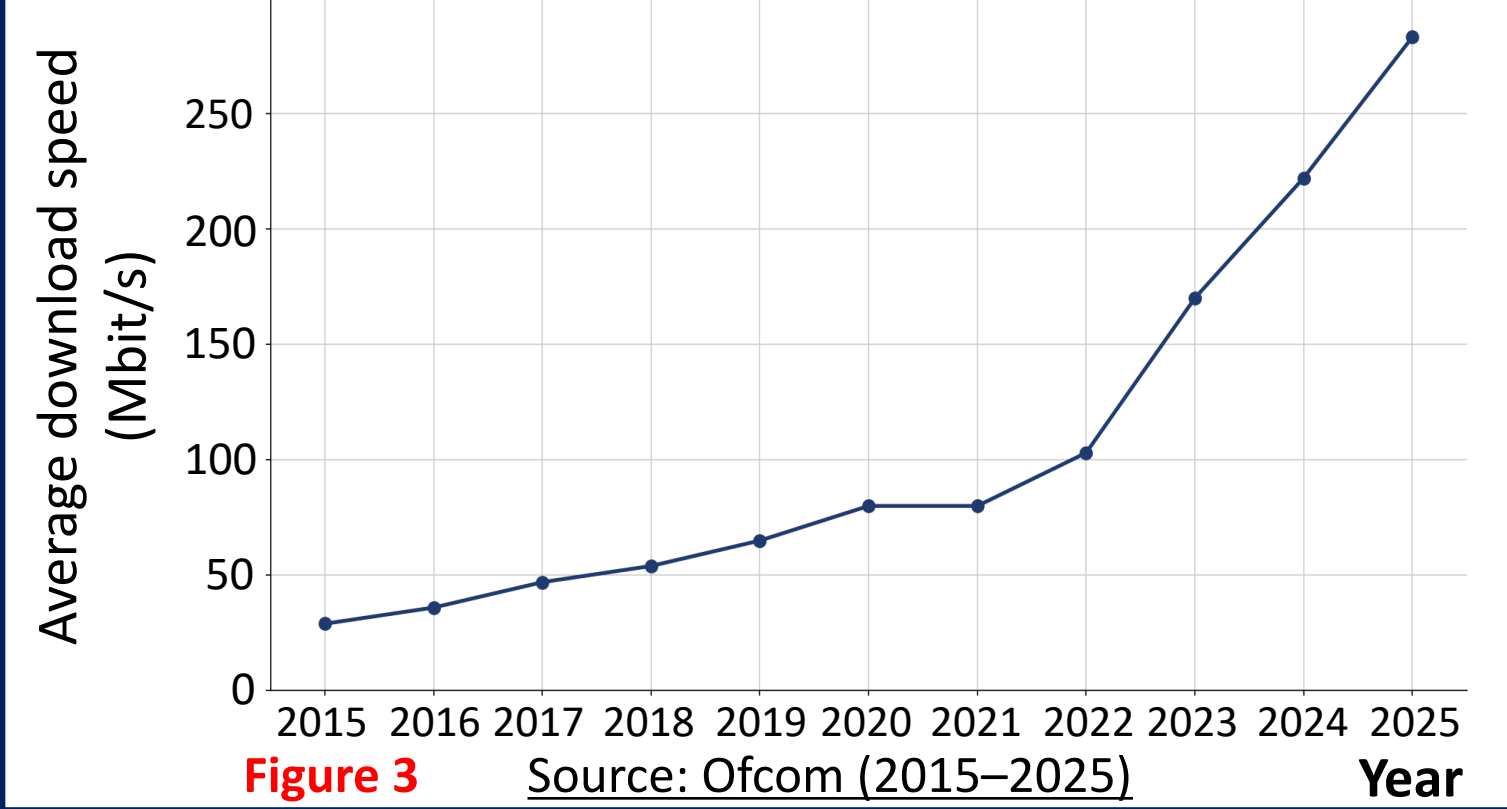


Figure 3 Source: Ofcom (2015–2025) Year

Conclusion

This study examined the UK digital divide from 2015 to 2025. Finding 1 revealed a paradox: the urban–rural coverage gap narrowed sharply, yet the median speed gap widened from 22 to 190 Mbit/s. Finding 2 showed no significant change in between-nation FTTP variation, though Northern Ireland reached 95% while Scotland stayed at 71%. Finding 3 confirmed a rise in average speed from 28.9 to 285 Mbit/s, matching the S-curve predicted by Oughton et al. (2021). Overall, the divide has not closed — it has shifted from access to performance and regional quality, so policy should pivot from coverage targets to speed-parity and regional equity. The main limitation is reliance on nation-level Ofcom data which does not include factors such as affordability and digital skills. Future research should be made to test whether speed gaps persist once coverage parity is reached.

References

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