

# Characterising high-speed broadband availability across Ireland<sup>1, 2</sup>

---

Seraphim Dempsey\*, Aislinn Hoy

*ESRI Research Bulletins provide short summaries of work published by ESRI researchers and overviews of thematic areas covered by ESRI programmes of research. Bulletins are designed to be easily accessible to a wide readership.*

## INTRODUCTION:

The importance and benefits of reliable and fast broadband in a post-Covid world are increasingly clear. While the urban-rural digital gap is globally observed, less is known about potential digital divide *within* rural or indeed urban areas. Documenting this relationship is important for understanding the equity implications of telecommunication policy given the ongoing and significant public investment into high-speed broadband infrastructure (National Broadband Plan). This research contributes to this discussion by empirically describing high-speed broadband availability across regions characterised as more or less socially deprived.

## DATA AND METHODS:

The National Broadband Plan map categorises areas as belonging to Excluded Areas (where commercial operators are operating) and Intervention Areas (where state intervention is required to install high speed broadband). This research used very small geographical regions (Small Areas) and calculated the share of each area which had no commercial operators providing high-speed broadband. Using new maps of urban boundaries, the research first described the urban-rural digital divide within Ireland. Next, area-based indicators of social deprivation (Pobal HP Deprivation Index) informed by the Census 2022, were used to describe how high-speed coverage varied across different rural areas. This indicator of social

---

<sup>1</sup> This Bulletin summarises the findings from Dempsey, S., and Hoy, A. (2024). Exacerbating the divide? Investigating within-rural inequality of high-speed broadband availability. *Telecommunications Policy* Available at <https://doi.org/10.1016/j.telpol.2024.102819>

\* Correspondence: [seraphim.dempsey@esri.ie](mailto:seraphim.dempsey@esri.ie)

<sup>2</sup> This research was supported by the Electronic Communications Research Programme at the ESRI, funded as joint research programme by the Department of the Environment, Climate and Communications (DECC) and the Commission for Communications Regulation (ComReg).

deprivation encompasses a wide range of social inclusion metrics such as educational attainment, employment status and the age-dependency ratio.

## **RESULTS:**

This study observed that high speed broadband coverage in Ireland varies significantly. Most people in urban areas having full coverage while the majority of those in rural areas have limited coverage. Encouragingly the results showed that the availability of high-speed broadband in urban areas does not follow a pattern of social deprivation. However, within rural areas, more affluent areas were found to have better high-speed broadband availability compared to more deprived areas.

## **CONCLUSIONS:**

Substantial differences in high-speed broadband coverage still remain, intended to be remedied over the course of the roll out of the National Broadband Plan up to 2026. An important methodological conclusion of the research related to the use of area-based measures of coverage, rather than household-based measures of coverage. While both measures described the same patterns, the paper showed that area-based measures tend to consistently under-estimate the amount of coverage provide.

Several future avenues of research could stem from the analysis of this paper. In particular, the ongoing rollout of high-speed broadband in rural areas provides an important opportunity to examine whether telecommunication policy temporarily increases or mitigates the digital divides between more affluent and more deprived rural areas. Documenting this relationship would help provide insight into whether the National Broadband Plan can be considered a progressive telecommunication policy within rural areas and add greater nuance to the debate regarding the importance of universal broadband availability.