

SPEED 2.0 – EVALUATING ACCESS TO UNIVERSAL DIGITAL HIGHWAYS

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Abstract

This paper shows that having access to a fast Internet connection is an important determinant of capitalization effects in property markets. Our empirical strategy combines a boundary discontinuity design with controls for time-invariant effects and arbitrary macro-economic shocks at a very local level to identify the causal effect of broadband speed on property prices from variation that is plausibly exogenous. Applying this strategy to a micro data set from England between 1995 and 2010 we find a significantly positive effect, but diminishing returns to speed. Our results imply that disconnecting an average property from a high-speed first-generation broadband connection (offering Internet speed up to 8 Mbit/s) would depreciate its value by 2.8%. In contrast, upgrading such a property to a faster connection (offering speeds up to 24 Mbit/s) would increase its value by no more than 1%. We decompose this effect by income and urbanization, finding considerable heterogeneity. These estimates are used to evaluate proposed plans to deliver fast broadband universally. We find that increasing speed and connecting unserved households passes a cost-benefit test in urban and some suburban areas, while the case for universal delivery in rural areas is not as strong. (JEL: L1, H4, R2)

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