Does High-Speed Internet (Broadband) Technology Affect the Mental Health of Older Adults?

Vikas PD Gawai*

September 11, 2023

Abstract

Recent empirical evidence in economics underscores the adverse impact of internet-enabled technology (social media) on college students' mental health, mainly due to unfavorable *social comparisons*. Yet, it remains unclear how a comparable technology (high-speed internet broadband) affects a more vulnerable older population. This paper examines the effect of high-speed internet broadband on the mental health of older adults (aged 50+) in the United States. Leveraging the quasi-experimental staggered rollout of high-speed internet broadband, combined with individual panel data, I utilize spatial, temporal, and individual-level variations in broadband availability and employ advanced difference-in-differences (DID) estimators. I find that the introduction of high-speed broadband significantly improves mental health among older adults (decline in depression symptoms by 5.2%), comparable with other major life events like job loss, recession, and the death of a spouse. I find evidence of novel mechanisms like an increase in *social connectedness* and a decline in *social isolation*. These contrasting findings for young and old cohorts underscore how similar technologies can affect differently by age and behavior. Heterogeneous effects by race and gender highlight barriers for African Americans and women, while rural older adults benefit more from broadband, suggesting potential benefits for rural areas. The paper further uncovers other underexplored mechanisms, including health literacy, cognitive function, and technological efficiency

*Ag and Applied Economics Department, University of Wisconsin-Madison. Email: gawai@wisc.edu

(telehealth) in nearby hospitals. With recent massive public investments of over $65 Billion in broadband infrastructure, these results carry significant policy implications for broadband policies and emphasize the potential benefits for older adults. JEL I12, I14, I18, L86, O18