

Does broadband infrastructure boost employment?

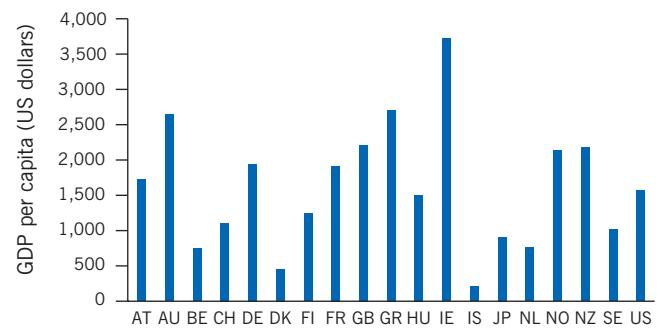
Broadband infrastructure has differing effects on workers of different skills

Keywords: internet, economic growth, employment, wages, skills

ELEVATOR PITCH

Broadband infrastructure enables fast access to the internet, which, evidence suggests, has significant effects on economic growth. However, labor market related issues have not received as much consideration. These include quantifying employment effects of broadband infrastructure roll-out and questions about who exactly are the winners and losers in the labor market, and whether skills in information and communication technologies (ICT) are reflected in labor market outcomes such as wages. Understanding these complementary issues allows for policy conclusions that go beyond simply encouraging the subsidization of broadband internet infrastructure.

Additional GDP in 2007 if country had same broadband diffusion rate as the leading country in 2003



Note: 2003 lead country = Canada, with a broadband diffusion rate of 15.1%.

Source: Author's own calculations based on [1].

IZA
World of Labor

KEY FINDINGS

Pros

- + The roll-out of broadband internet infrastructure generates economic growth, partly through firm entry.
- + The employment effects of broadband infrastructure are small, but positive.
- + Broadband internet infrastructure complements skilled workers.
- + Access to broadband internet enables the accumulation of ICT skills, which are substantially rewarded in the labor market.

Cons

- The positive employment and firm-entry effects of broadband internet infrastructure are limited to certain industries and/or locations.
- Broadband infrastructure creates losers among low-skilled workers.
- Adoption of high bandwidth internet connections is slow in many countries.
- The share of workers without basic ICT skills is considerable in developed countries.
- Slow adoption of high bandwidth internet connections and lack of ICT skills might limit the growth effects of broadband internet infrastructure.

AUTHOR'S MAIN MESSAGE

Broadband infrastructure has positive economic growth effects, but only small employment effects; the latter is due to a mixture of positive effects among high-skilled workers and negative effects among low-skilled workers. Complementary ICT skills are highly rewarded in the labor market. Labor market institutions that support workers in adjusting to the rapidly changing work environment in a digital world, and measures designed to reduce the skill gap between "digital natives" and "digital illiterates," will reduce the inequality between the winners and losers of broadband infrastructure.