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Assessing the Impact of Telework Adoption on GHG emissions: A Study Using a Job Search Model

This paper analyzes the impact of telework adoption and carbon tax on carbon emissions. The reduction in transport costs due to the adoption of teleworking increases access to the labor market for unemployed workers living far from the city center and increase carbon emissions. Implementing a carbon tax tend to moderate these increases and induces a change in mobility technology. Thus, we propose a search model with a spatial mismatch to study the impact of teleworking on greenhouse gas (GHG) emissions through its effect on distance from city center and the transition to a decarbonized mobility technology of individuals. Using French data, we show that telework has an antagonistic effect on GHG emissions. On one hand, there is a direct positive effect through the reduction of individual home-work travels and overall kilometers traveled. However, we also identify two adverse effects: teleworking leads to a decrease in the unemployment rate and a reduction in the transition rate towards electric vehicles (EV). We also assess the potential of a carbon tax to mitigate GHG emissions, yet it must be high to be efficient in the case where telework is adopted.

Key words: Teleworking, carbon tax, pollution, mobility, electric vehicle, equilibrium search model

- 12h30 – Salle 103 / Comodal
- Participer à la réunion Zoom

  https://zoom.us/j/99935051449

  ID de réunion : 999 3505 1449
- Calendrier des séminaires

  https://urlz.fr/nv08