

High Speed Rail and Regional Economic Development in Australia: A Multi-regional Input-Output Approach

Topic: Country case studies

Author: Jian Wang

Estimating the economic impacts of HSR on regional development is a largely unsolved issue. This paper will provide an overview of the basic issue, the contributions of empirical literature, the modelling approaches used until now, a multi-regional framework and how it might be applied in the Australian context.

Many cost-benefit studies of individual transport projects concentrate on narrow measures of economic benefits. Another type of research, focusing on economic productivity, defines benefits more broadly but is also limited by functional aggregation constraints. This research introduces a unified approach to estimate and evaluate the economic impacts from development of HSR networks within the regional context in Australia, based on our review of the existing literature of alternative methodologies available. The proposed multi-regional framework focuses on the inter-industry relationship in conjunction with regional commodity flows and the assessment of changes on a transportation network. The analytical methods employed are twofold: a multi-regional input-output (IO) model and a transportation accessibility evaluation index. By using this analytical framework, the economic impacts from developing an Australian HSR system can be estimated and evaluated on hypothetical scenarios relating to any future HSR project.