

Spatial Representation in Economic Impact Models

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Economic impact models are increasingly being called upon to provide answers and impact assessments at fairly granular levels and to address a variety of issues that are inherently linked to the specific spatial context of wider economic benefits (WEB's). This research question has been at the heart of many economic impact papers and models and continues to be an important question. In this context, modeling directions have gone in different directions across the world especially in regard to the treatment of space some of which has occurred in tandem with government and other stakeholder interests in knowing redistributive and generative impacts of transport projects. Understanding the theoretical motivations and context in which some of these developments have occurred can be of value to the policy and practice of economic impact analysis, wider benefit assessment, and to researchers interested in modeling.

Given that background, the specific aims of the research paper are to discuss the importance of space and its value in impact models. In the process, this paper will seek to distinguish the underlying theoretical constructs that are called upon in impact models in the implementation of space. A review of international and domestic model developments is the method adopted, to demonstrate features and assumptions of various models including the specific applications of these approaches. These include computable general equilibrium, integrated models, and other similar models that are being used across the world. Developments in United States, Europe, South America, and Australia are included in this review including recent developments from Department of Transport, UK pertaining to the development of modules aiming to determine wider economic benefits.