

# New England University Transportation Center



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## Final Report

*Project Title:*

### Data Use & Organizational Innovations in Transportation Planning

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## Data Use in Organizational Innovations and Transportation Planning

In response to transportation innovation and particularly high-speed rail as well as various political factors, there is a need to rethink the underlying precepts of transportation planning for urban areas and also planning at a regional scale. In particular, high-speed rail can provide opportunities for people to move from city to city in a timeframe that can be much improved over what is available with current modes—highway-based, air and conventional rail. And this creates an opportunity if not an imperative to rethink transportation planning.

The innovative concept of “discontinuous regions” was explored in this research. By discontinuous regions, we mean that a region can be created “integrating” two cities – which become connected via HSR, while the locations between those two cities, that lack a station and hence access to high-speed rail, may be less advantaged. Also, new dynamics between dominant cities and secondary cities (say, Lisbon and Coimbra in Portugal) through long-distance commuting may be both an opportunity and a problem. Further, the connection between the intercity mode (HSR) and urban form (e.g. station location) and local transportation systems must be considered. This suggests the need for new planning processes involving organizations at the federal, regional and local scales.

The results of this research was reported at the Transportation Research Board annual meeting in January 2013 in a paper by Naomi Stein and Professor Joseph Sussman numbered 13-04-08.

Discontinuous Regions: High-Speed Rail and the Limits of Traditional Governance (.pdf [ESD-WP-2012-22](#))

The paper explores how governance may need to change in this new planning context. The overall findings of this research recognize that high-speed rail can serve as a catalyst for governance, rethinking regional identity, new modes of commuting where relationships between cities can fundamentally change in terms of commercial markets and labor markets and indeed gives us an incentive to rethink inter-municipal regional cooperation seeking win-win solutions.

In addition to the paper described, the results are reported in a Master of Science in Transportation/Master of City Planning thesis by Naomi Stein:

Spatial Dimensions of High-Speed Rail: Intermediate Cities, Inter-Jurisdictional Planning, and the Implications for High-Speed Rail in Portugal (June 3013)

The nation of Portugal and the UK served as the test beds for the study of these concepts and provided a useful framework for thinking through this new planning framework. Further work would involve applying it in other countries and especially in the US.

[Related papers by members of the research team](#)

Megacities and High Speed Rail systems: which comes first? (.pdf [ESD-WP-2012-07](#))

Financing Methods for High-Speed Rail with Application to Portugal (.pdf [ESD-WP-2011-09](#))

The Portuguese High Speed Rail Network; Relating Financing to Strategic and Operating Issues  
(.pdf [ESD-WP-2011-02](#))

Literature Review of Papers relevant to the topic of development impacts and economic  
evaluation methods of High-Speed Rail (HSR) (.pdf [ESD-WP-2010-07](#))

**Website:**

**Regional Transportation Planning and High-Speed Rail Research Group**

<http://mit.edu/hsr-group/publications.html>