

2016 FALL METRANS RESEARCH SEMINAR

November 10, 2016
12:00 PM to 1:30 PM
USC – RGL 308 (updated location)

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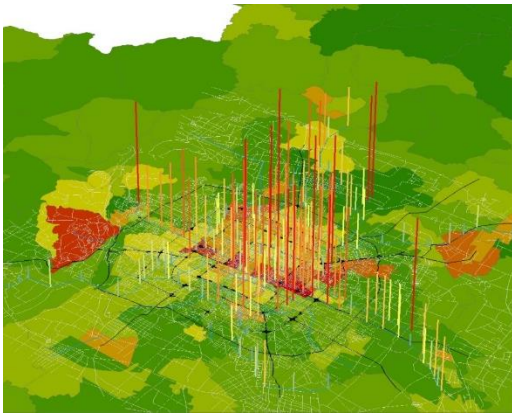
Two Case Studies on Land Use Impacts of Rail Transit in China

Presented by Haishan Xia and Chun Zhang
of the School of Architecture and Design, Beijing Jiaotong University

Can Light Rail Benefit Job-Housing Relationships and Land Use-Transportation Integration in New Town?

| Case Study of Yizhuang, Beijing

Since 2000, Beijing urban transit construction has rapidly accelerated and many new towns have emerged near transit lines connected to the central city. As a municipality in an economic development zone, the new town of Yizhuang has faced challenges integrating transportation and land use. In particular, its transit line was built to carry commuters from nearby suburban areas to the city's industry parks, while in reality local residents are using the line to commute to job opportunities in the central city of Beijing. This study applies GIS analysis to explore the reason for this reverse commuting by selecting three stations along the line and investigating the planned versus actual land uses within a 1 km radius of each station.



High-Speed Rail Causing Changes in Urban Form

| Case Study of the Beijing-Tianjin-Hebei Region

With the rapid development of high-speed rail in China in recent years, mega-region urban form has undergone dramatic change, especially in terms of regional and urban development in the area surrounding Beijing. Using a theoretical framework, population and economic basic unit surveys data, and data from smart phone check-in records, this study applies spatial statistic, network, and scenario analysis methods in GIS to explore the influence of high-speed rail on cities of varying location and size. Specifically, the research tracks changes in population and job opportunity with respect to the growth of the rail system, as well as evaluating connectivity between different levels of rail transit.

Haishan Xia is a Professor and Dean at the School of Architecture and Design, Beijing Jiaotong University, as well as the Director of the Jiusan Society at BJTU. His research focuses on rail transportation and smart city planning, underground urban space integration planning and design, and green building design. Xia received his doctorate in Architecture from Tongji University, and he was a senior visiting scholar at the University of Pennsylvania.

Chun Zhang is an Associate Professor and Director of International Affairs at the School of Architecture and Design, Beijing Jiaotong University. Her research focuses on planning, urban form and air quality, job-housing accessibility, and neighborhood change. Chun received her doctorate in Human Geography from Peking University.

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