

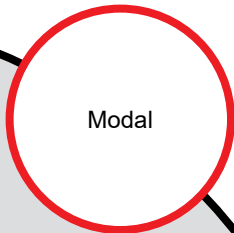


Caltrans Division of Research,  
Innovation and System Information

# Research



# Results



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**MAY 2019**

**Project Title:**

International Lessons for Promoting Transit Connections to High-Speed Rail Systems

**Task Number:** 2637

**Start Date:** July 7, 2014

**Completion Date:** April 30, 2016

**Task Manager:**

Patrick Tyner  
Associate Transportation Planner  
patrick.tyner@dot.ca.gov

## Promoting Transit Connections to High-Speed Rail Systems

Utilizing international best practices to do a transit connectivity analysis based on the population sizes of three selected California HSR stations/communities.

### WHAT IS THE NEED?

Intercity and High-Speed Rail Services provide trunk line rail service between major cities and, in some cases, rural activity centers. The success of these trunk line services rests on their quality, frequency and reliability, however, they are also dependent on the quality and the amount of connecting linkages established at stations and major terminals with other modes of transportation. This creates a connected transportation system and the connectivity attributes of the High-Speed and Intercity Passenger rail lines is crucial for their success. In each local community the ability to feed and distribute riders safely, efficiently and quickly will make the entire system more attractive and result in the maximum number of riders.

As California has begun to plan for and soon construct its own HSR Service, the understanding of how trunk line services may be utilized to increase HSR ridership is crucial to the long-term viability of the high-speed service. How communities and transit providers have developed these connected systems abroad is knowledge that California may be able to replicate in creating more efficient and interconnected rail systems.

### WHAT WAS OUR GOAL?

The end product is an analysis of three HSR stations in California (Gilroy, Fresno and Los Angeles) as they relate to their connectivity to other rail and transit systems, given the communities population. This evaluation will assist transportation planners in developing HSR stations that can potentially maximize ridership and intermodal connectivity.



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## WHAT DID WE DO?

The consultant proposed that benchmarks by population size of connections provided to high-speed and intercity passenger lines throughout the world be developed through a thorough internet based research of the available information on connectivity on high-speed systems currently operating throughout the world. Based on this research, benchmarking was done by population size categories to develop a connectivity model that reflects current decisions made and services provided. The web-based bibliographical review was accomplished to define the optimum HSR feeder systems for the various sized communities. Using formal case study comparison procedures, the research then applied international best practices to identify the optimum feeder systems for each population size served.

Three of the twenty-six (26) California High-Speed Rail stations of differing population sizes were selected for connectivity analysis. Detailed case studies were done on the selected stations three of California's 26 high-speed rail (HSR) station-designated communities representing three different population sizes. The research then determined what each community is doing to prepare to provide connections to the new High-Speed Rail station or terminal. The team completed in-person interviews with the metropolitan planning area and transit agency leadership of the three case-study HSR communities.

## WHAT WAS THE OUTCOME?

A coordinated approach to the creation of a new HSR system in California, and the establishment of good connection services, is difficult to achieve due to local politics, decentralized decision-making, the lack of easily available resources, and the general lack of consensus on the overall

project. The authors believe that the provided case studies offer evidence and guidance to local decision-makers and shows that establishing high-quality connections to new HSR systems in their communities will create jobs, promote economic activity, and help to establish new interregional economic activity. The bottom line is that locations connected by high speed rail that include high-quality local connections succeed in being more attractive to intercity travelers and tourists, have more appeal to companies and institutions, and help these areas compete on a national and statewide level. The efforts currently underway to coordinate efforts between local officials and the California High Speed Rail Authority will benefit from the insights offered in this study.

Good connections are essential to maximize the benefits of a new HSR hub. Throughout the world, HSR has established new economic development patterns and assisted in local competitiveness. Unlike traditional passenger rail services, HSR offers speeds that alter the perception of place and distance and can make a significant local impact. Improved local connections will help transform these places.

## WHAT IS THE BENEFIT?

The project documented feeder systems in use on similar High-Speed Rail systems to optimize connectivity with urban transport systems and provide guidance to planners, elected officials and project sponsors on the development of feeder systems in American high-speed rail projects. By raising the connectivity issue to a large number of decision-makers, planning for quality connections will be enhanced and expedited and more attention will be given to connectivity at all levels of government and public transportation service management.

Caltrans' Division of Rail and Mass Transportation (DRMT) manages and coordinates statewide intercity passenger rail service known as "Amtrak California" that helps to improve the state's air quality and reduce highway congestion and fuel consumption. The potential enhancement of the high-speed rail system, existing passenger rail lines and other transit modes would be of significant value to Caltrans in offering the traveling public the potential for more attractive and efficient passenger travel options.

## LEARN MORE

<http://transweb.sjsu.edu/project/1226.html>

## IMAGES



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