

New England University Transportation Center



NE University Transportation Center
77 Massachusetts Avenue, E40-279
Cambridge, MA 02139
Phone: 617-253-0753
Fax: 617-258-7570
web.mit.edu/utc

Principal Investigator: Jose Gomez-Ibanez
Title: Professor of Urban Planning and Public Policy, Harvard Kennedy School
University: Harvard University
Email: jose_gomez-ibanez@harvard.edu
Phone: 617-495-1341

Co-Principal Investigator: _____
Title: _____
University: _____
Email: _____
Phone: _____

Final Report

Project Title:

Open Access for Freight Railroads: Worthwhile or Wasteful Disruption

Project Number:

5249129-01

Project End Date:

08/31/2009

Submission Date:

10/07/2009

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented herein. This document is disseminated under the sponsorship of the Department of Transportation, University Transportation Centers Program, in the interest of information exchange. The U.S. Government assumes no liability for the contents or the use thereof.

The New England University Transportation Center is a consortium of 8 universities funded by the U.S. Department of Transportation, University Transportation Centers Program. Members of the consortium are MIT, the University of Connecticut, University of Maine, University of Massachusetts, University of New Hampshire, University of Rhode Island, University of Vermont and Harvard University. MIT is the lead university.

Final Report

In the last three decades many governments have restructured their network industries—including electricity, telecommunications and railroads—to require that network operators provide access to independent carriers. Requiring open access to the network involves a tradeoff between the benefits of enhanced competition among carriers and the costs of reduced coordination between the network operators and carriers. Quality services require coordination of the actions and investments of the network provider and the carrier, if only to make sure that network capacity is available when and where the carrier needs it. The fact that network and carrier functions have traditionally been integrated in the same firm strongly suggests that the coordination between these two activities is much easier when they are provided in one firm, reporting to the same CEO and stockholders, than if they are provided by independent firms.

This study compares the experience of the freight railroads in North America, Europe and Australia with required access. Europe and Australia have pursued very different network access strategies than the United States and Canada. Both the European Commission (EC) and the Australian government have required network operators to open their tracks to independent train companies providing many different kinds of services, and the EU has also required the incumbent railroads to divide their infrastructure and train operations into separate companies. In the United States and Canada, by contrast, the freight railroads remain vertically integrated in that each railroad operates most of the trains that travel over its tracks. Only roughly 20 percent of the track is open to another railroad and as much as 80 percent of that access is the result of voluntary exchanges between railroads rather than government compulsion.

The results of the study are summarized here and reported in detail in three working papers, one each on Australia, Europe, and North America.

In brief, the Australian experience suggests that the competitive gains from open access have not been commensurate with the coordination costs. The competitive gains appear to be modest. Few new entrants and new service offerings have materialized. Tariffs for some coal shipments are thought to have dropped by 10 to 20 percent because of threats of entry or actual service provision by competing rail carriers. But rates for containers have not gone down despite limited entry, perhaps because the railroads have long faced tough competition for container traffic from trucks for shorter distances and from ships for the transcontinental movements. Coordination costs are hard to estimate. The infrastructure services remain in government hands and heavily subsidized, and their extra resources presumably reduce the conflicts with the train operators. Nevertheless, there are many anecdotal accounts of coordination problems and delays. Congestion due to poor coordination has proved to be an especially serious problem in the movement of export coal, the one commodity where tariffs are thought to have declined.

The lesson of the European experience is that coordination problems caused by unbundling infrastructure from train operations and opening access escalate rapidly when the network approaches capacity, and if the train operators and infrastructure providers are public enterprises. In continental Europe coordination conflicts have been reduced by leaving the infrastructure provider in the public sector with heavy subsidies, and by restricting the ability of train operators to offer new domestic passenger services. As a result there has been limited entry, although perhaps also limited coordination problems. In Britain, where the infrastructure provider was privately owned and train operators were encouraged to expand services, the coordination

problems proved so severe that they caused the bankruptcy and public takeover of the infrastructure provider in 2001.

Finally, the North American experience suggests that competitive benefits and coordination costs may be more in balance if the grants of access are more selective and limited. The voluntary exchanges of access rights common in North America pose no obvious policy problems since they reduce railroad costs while increasing, or at least not reducing, competition. Studies suggest that compelled access can provide important competitive gains in that a freight shipper who has access to two carriers, pays as much as 20 percent lower tariffs than a shipper with access to only one carrier (depending upon commodity and location). The gains to society from 20 percent lower tariffs can be offset, however, if reduced coordination increases railroad costs by as little as 2 percent. Cost increases of that magnitude seem possible or even likely, although there are no reliable estimates, only qualitative accounts. But the coordination problems appear to be less serious in North America than they are in Europe or Australia because many of the access grants are for relatively short distances, are reciprocal in nature, and build upon existing interoperability. The reciprocity is possible because the U.S. and Canadian governments did not force their freight railroads to separate infrastructure from train operations. As a result one railroad is typically both the recipient and the grantor of access rights to a second railroad, which provides incentives for both railroads to behave reasonably in honoring access rights.

Working Papers

Mark Fagan (2008), "Introducing Competition into Natural Monopolies: An Evaluation of Mandated Access to Australian Freight Railroads," Working Paper 2008-1, Taubman Center for State and Local Government, Kennedy School of Government, Harvard University.

Jose A. Gomez-Ibanez (2009a), "When Open Access Works: Lessons From North America's Railroads," unpublished, Taubman Center for State and Local Government, Kennedy School of Government, Harvard University.

Jose A. Gomez-Ibanez (2009b), "Track Access in Europe: The Costs of Coordination," unpublished, Taubman Center for State and Local Government, Kennedy School of Government, Harvard University.