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JULY–AUGUST 2009

PRICING STRATEGIES TO EASE ROADWAY CONGESTION

3 INTRODUCTION

Pricing Road Use to Address Congestion

Patrick T. DeCorla-Souza and Mark F. Muriello

Congestion pricing—also called value pricing, variable pricing, peak-period pricing, market pricing, differential pricing, and dynamic tolling—applies fees or tolls that vary with the level of traffic, usually by time of day. The purpose is to improve transportation system performance—but enhanced revenues are a potential outcome.

4 Congestion Pricing Basics

Jeffrey N. Buxbaum

Under congestion pricing, a highway authority must anticipate economically efficient prices; communicate the prices to travelers; and adjust the prices according to the response—all in real time—so that traffic flows more freely. But travelers may be worse off on average if the revenues are not applied to increase mobility throughout the system.

8 U.S. and Worldwide Experience with Congestion Pricing: An Overview

Kiran Bhatt, Thomas Higgins, and John T. Berg

Many congestion pricing projects are now operating in the United States and other nations, including the pricing of high-occupancy vehicle lanes and new express lanes, the conversion of tolled or toll-free facilities to variable tolls, and the application of congestion pricing within an area or region.

14 Improving Models for Traveler Behavior Under Congestion Pricing

Peter Vovsha

16 Promoting Appropriate Congestion Pricing Solutions in Europe: Improving Access and Reducing Emissions

David Blackledge

The European Commission sponsored a congestion pricing demonstration project that approached implementation as an iterative process, recognizing that no one-size-fits-all solution could ensure success. The project developed case studies of European cities that have implemented or sought to implement congestion pricing, which is entering the mainstream of European political debate.

20 Tolled Managed Lanes: Lessons Learned and Challenges to Meet

Ginger Goodin and Chuck Fuhs

Experience with tolled managed lanes has provided key lessons for the implementation of pricing, including the effects on carpools and transit, the generation of revenue, the settings appropriate for projects, and the required design and operational changes. Remaining challenges include enforcement, level of service, equity considerations, demand forecasting, and communication with drivers.

23 What's in Store for Second-Generation Express Lanes in San Diego?

Derek Toups

The congestion pricing demonstration on Interstate 15 in San Diego, California, set the bar for the conversion of high-occupancy vehicle lanes to high-occupancy toll lanes 13 years ago. A major expansion is under way, doubling the length and width of the lanes, and setting new standards for managed lane projects.

28 Nontoll Forms of Pricing to Reduce Traffic Congestion and Pollution: Mileage, Insurance, Carsharing, and Parking Strategies

Allen Greenberg

Per-mile road use fees, pay-as-you-drive car insurance, neighborhood carsharing, the cash-out of employer-provided parking, and variably priced parking are strategies designed to make the costs of driving more evident, influencing the amount and timing of driving in ways that confer environmental, safety, and congestion-reduction benefits.



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COVER: The MnPASS I-394 project in Minneapolis, started by the Minnesota Department of Transportation in 2005, converted high-occupancy vehicle lanes to high-occupancy toll lanes. Congestion pricing strategies are being studied and implemented across the nation. (Photo: David Gonzalez, Mn/DOT)

TR NEWS

features articles on innovative and timely research and development activities in all modes of transportation. Brief news items of interest to the transportation community are also included, along with profiles of transportation professionals, meeting announcements, summaries of new publications, and news of Transportation Research Board activities.

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32 The Acceptability of Road Pricing: Notable Findings— and Gaps for Research

Thomas Higgins

The volume of research on the acceptability of road pricing is expanding in scope and emphasis, with findings and conclusions valuable to local, regional, and state planners. More research is needed into the perceptions of decision makers and stakeholders critical to the start-up and continuation of pricing programs.

35 Bumps Along the Road: Lessons from Congestion Pricing Projects That Did and Did Not Make It

Lee Munnich and John Doan

Case studies of congestion pricing proposals and projects in Edinburg, Scotland; New York City; and Minneapolis, Minnesota—all of which faced significant bumps along the road to implementation—present valuable lessons learned about political and public acceptance of the strategy.

39 New Ideas for Congestion Pricing

Patrick DeCorla-Souza and Matthew E. MacGregor

The authors explore innovative congestion pricing approaches—such as flexible and efficient express lanes, tolled bypass lanes, priced highways, priced zones and networks, and other strategies, including public-private partnerships to reconstruct, finance, and operate the facilities. These promising strategies—some yet untried—require creative solutions to safety and operational challenges.

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COMING NEXT ISSUE



Passengers disembark from a light rail transit vehicle. U.S. demographics are changing, and the transportation system will need to adapt.

The impact of changing demographics on the transportation system—on the workforce, on system demand, and on safe mobility—is the focus of articles assembled for the September–October issue of *TR News*. Topics include key issues in transportation and aging, gender differences and transportation choices, and transportation demand in the context of growing diversity, as well as research and data needs. Other articles include an overview of entries in TRB's 2009 contest on communicating about transportation, energy, and climate change to the general public; applying service-life modeling to select repair and rehabilitation options for bridges; and more.