

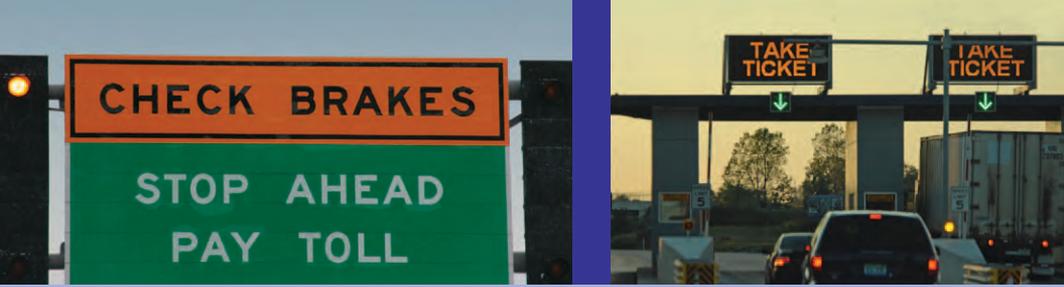


Executive Education Program

## **Pricing Highway Infrastructure**

September 10-12, 2012

A specially designed executive program for professionals in both the private and public sectors focusing on the principles and methods of pricing highway infrastructure



## Program Faculty

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**Ronald Braeutigam** *Associate Provost, Northwestern University, and the Harvey Kapnick Professor of Business Institutions and Professor of Economics, Weinberg College of Arts and Sciences*

Ronald Braeutigam is the co-author of one of the leading textbooks on intermediate-level microeconomics. He has undertaken research and consulting on pricing, costing, strategy and regulation in the transportation, telecommunications and public utility industries.

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**Hani S. Mahmassani** *William A. Patterson Distinguished Professor of Transportation and Professor of Civil Engineering, McCormick School of Engineering and Applied Science; Director, The Transportation Center, Northwestern University*

Hani Mahmassani has thirty years of professional, academic, and research experience in network modeling and optimization, traffic engineering, dynamic system management, and real-time operation of logistics and distribution systems.

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**Ian Savage** *Associate Chair of Economics and Distinguished Senior Lecturer, Weinberg College of Arts and Sciences, Northwestern University*

Ian Savage specializes in urban transportation, and the analysis of safety regulation and safety performance. His research focuses on pricing, costing, subsidies, management strategy, and the impacts of competition and privatization.

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**Joseph L. Schofer** *Associate Dean, McCormick School of Engineering and Applied Science; Professor of Civil and Environmental Engineering; Director, Northwestern University Infrastructure Technology Institute*

Joseph Schofer has forty years of professional experience. His work focuses on planning and management of transportation systems, particularly the provision and use of data and information for effective system evaluation and policy and operational decision making.



## Executive Education Program

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**Funding of highways is at a crossroads.** Traditional funding mechanisms, such as gasoline- tax revenues, are proving to be insufficient to maintain existing facilities and fund expanded capacity. Government agencies are looking to users to make up for the shortfall. Highway infrastructure offers an exceptional opportunity for raising funds to establish and/or sustain such infrastructure while providing an attractive return on investment to both public and private investors. Key to achieving such returns are the prices charged to users. But how should user charges be set?

- Should every user pay the same fee?
- Is it practical, commercially worthwhile, and socially acceptable to charge user fees?
- How are these pricing principles changed when the facility is congested?
- What methods can be used to forecast future revenue streams?
- How does the pricing of an individual link affect the performance of the neighboring highway network?
- How does private operation of a facility change the pricing objectives?
- How might the public sector regulate prices?

These questions and more will be addressed in this three day course offered by the Northwestern University Transportation Center.

#### Who Should Attend

The course is aimed at: professionals who currently, or may in the future, set user charges; financial personnel; engineers and project managers who oversee facility maintenance and new construction; and government officials who may manage programs of fee-paying private or public facilities. It is also applicable to consultants to infrastructure providers, and those who finance infrastructure projects.



## Program Content

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Basic economic principles of pricing

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Differential prices across user groups

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Principles of congestion pricing

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Demand responsive pricing

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Revenue projection

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Advanced network demand prediction tools

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Financing

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Social and political acceptability of pricing infrastructure

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Pricing in a public/private partnership

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Regulation of private-sector pricing

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Evaluating investments in capacity enhancement

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## Course Prerequisites and Format

The focus of the course is on the economics of pricing. Some prior knowledge of economics, such as might be obtained from an introductory college-level microeconomics course, will be useful.

The course will run from 8:30 a.m. until 5:00 p.m. on Monday and Tuesday. It will conclude at 4:00 p.m. on Wednesday.

## Professional Development Credit

For information regarding professional development credit hours, please contact Diana Marek at [d-marek@northwestern.edu](mailto:d-marek@northwestern.edu) or 847-491-2280.

## Why Northwestern?

The Northwestern University Transportation Center is an internationally renowned center of transportation education and research founded in 1954. Its interdisciplinary faculty have provided education on transportation economics, policy, financing, and management to undergraduates, graduate students and transportation professionals for more than fifty years. Transportation Center faculty contribute to the identification, analysis, and resolution of transportation problems and issues concerning all modes of transportation, in all settings — urban, regional, national, and international.



## Location and Facilities

Program participants will enjoy the facilities of the state-of-the-art executive conference center in Chambers Hall, the headquarters of the Transportation Center located in the heart of Northwestern's Evanston campus on the shores of Lake Michigan. Northwestern is located just north of Chicago and approximately 45 minutes from O'Hare International Airport.

## Hotel Lodging

Program participants are responsible for their own travel and lodging arrangements. A block of rooms has been reserved at the Hilton Garden Inn – Chicago North Shore / Evanston in downtown Evanston, a short walk from the Northwestern Campus.

Hilton Garden Inn  
1818 Maple Avenue, Evanston, Illinois 60201  
Reservations: (847) 475-6400

📍 <http://www.hgievanston.com>

## Registration & Fees

Program Fee	\$ 2,700
Early Registration Fee (If paid before August 17, 2012)	\$2,160
Government & Academic Rate	\$2,160
CSCMP Member Fee – 5% Discount	

Program fee includes tuition, all program materials, continental breakfasts, lunches, and a welcome reception.

## To Register

For more information or to register on-line, visit [www.transportation.northwestern.edu/industry/exec-programs/2012\\_pricing](http://www.transportation.northwestern.edu/industry/exec-programs/2012_pricing) or contact Program Registrar, **Diana Marek** at phone: 847-491-2280 email: [d-marek@northwestern.edu](mailto:d-marek@northwestern.edu)

# **McCormick**

Transportation Center

Robert R. McCormick School  
of Engineering and Applied Science  
Northwestern University  
600 Foster Street  
Evanston, IL 60208-4055

*“This program is well done. The instructors are outstanding. I had a great and informative experience and met very nice colleagues.”*

— Baher Abdulhai, Ph.D., P.Eng  
Director, Toronto Intelligent Transportation Systems Centre  
Department of Civil Engineering, University of Toronto

*“...provides an insight into the state-of-the-art and gives examples of methodological advances in road pricing design schemes.”*

—Sascha Ruja  
Head of Region West Europe  
Q-Free ASA



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