King Coal Highway

Model Public–Private Partnership

U.S. Energy Outlook: Positive Implications for Transportation

Automated Vehicle Technology: Research Areas to Follow

Driverless Cars: Promises and Pitfalls

Programming Funds for Research

Plus: Practical Findings from Cooperative Research Programs
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The Rapidly Improving U.S. Energy Outlook: Positive Implications for Transportation
Gary Maring and Marianne Mintz
Advances in exploration and production technologies have opened up vast new reservoirs of domestic oil and natural gas in the United States. The authors survey recent developments and the outlook, which they term a “win–win for U.S. transportation, economic development, energy, air quality, and climate policy.”

The King Coal Highway: West Virginia Department of Transportation’s First Public–Private Partnership
Sabrina DeVall and Michael Pumphrey
A public–private partnership between West Virginia and a coal mining company reduced project costs and time in completing construction of portions of a north–south Interstate Highway corridor traversing mountainous terrain. The authors describe the problems solved and benefits gained from what has become a model project.

Automated Vehicle Technology: Ten Research Areas to Follow
Robert P. Denaro, Johanna Zmud, Steven Shladover, Bryant Walker Smith, and Jane Lappin
TRB and Stanford University cosponsored a workshop in July 2013 on the challenges and opportunities related to the increasing automation of motor vehicles and the environments in which they operate. The authors trace ten major topics with related research questions culled from the workshop’s breakout sessions.

Who Is in Charge? The Promises and Pitfalls of Driverless Cars
M. L. Cummings and Jason Ryan
Driverless car technology promises safer and more efficient driving systems, but many questions remain, the authors note, such as the robustness of the technology and the interaction between the human driver and the technology. Proper design and extensive testing are needed, and great care should be taken in implementation.

A Note About Programming Research Funding
Robert E. Skinner, Jr.
Allocating funds to support research and innovation is a formidable task, the author notes, and suggests a four-faceted approach that may help provide a better, more understandable rationale for research investments and promote investments that will be more cost-effective in the long term.

Assessing Highway Research and Development Priorities
Walter E. Diedwald

Automated Enforcement for Speeding and Red Light Running
Rebecca Fiedler and Kim Eccles
A recent National Cooperative Highway Research Program (NCHRP) Report examines successful automated speed and red light running enforcement initiatives and explores the factors contributing to success.

Communicating the Value of Preservation: A Playbook
Joe Crossett
A recent NCHRP Report developed guidance for officials at state transportation agencies to develop and implement strategies for communicating the role and importance of maintenance and asset preservation in sustaining highway system performance.
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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43 NCHRP SYNTHESIS OF HIGHWAY PRACTICE
Engineering Economic Analysis Practices for Highway Investments
Michael J. Markow

An NCHRP synthesis study affirms the benefits of engineering economic methods, showing how select transportation agencies have applied exemplary practices in benefit–cost analyses and similar procedures to a range of applications in highway investment decision making.

47 NCHRP REPORT
A Model for Identifying and Evaluating the Historic Significance of Post–World War II Housing
Emily Pettis and Christina Slattery

The protection of post–World War II residences increasingly is being considered as part of a transportation project’s compliance with the National Historic Preservation Act. An NCHRP Report offers national guidance, a national historic context, and a survey and evaluation methodology for single-family postwar residences.

50 NCHRP PROJECT IN PROGRESS
Framework for Making Safe Transportation Decisions:
Seven Principles for Prioritizing Safety
Susan B Herbel and Nicole Waldheim

The authors present seven tested, practical principles derived from an NCHRP project in progress to help states to incorporate transportation safety considerations and implement measures throughout the planning process.

54 ACRP SYNTHESIS OF AIRPORT PRACTICE
Issues with Airport Organization and Reorganization:
Finding the Perfect Organizational Structure for an Airport
Kimberly A. Kenville and James F. Smith

An Airport Cooperative Research Program synthesis study has assembled a flight plan to assist airports in changing or adapting their organizational structures to meet strategic, operations, and business goals and to facilitate the delivery of core services.

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COMING NEXT ISSUE

Feature articles and sidebars in the July–August TR News assemble a comprehensive how-to on performance management in transportation. Authors explore current thinking, lessons learned, tools and techniques, and issues related to performance management—what works and what does not. Features detail the experience of a CEO in championing performance management; how state DOTs are using performance measures in long-range planning; successful efforts to communicate performance management information; developing organizational support for performance management; underpinning performance measurement and decision making with quality information; the interrelationship between transportation asset management and performance management—and more.

North Carolina DOT’s website dashboard presents statistics on performance, providing accountability at all levels and across all program areas.