

WHO WILL USE AND BENEFIT FROM SHRP 2 RESEARCH?

- Taxpayers
- Motorists
- State and local transportation agencies
- Commercial drivers
- Bus riders
- Shipping and logistics professionals
- Environmental agencies
- Communities, businesses and event owners
- Railroads
- Utilities
- Auto manufacturers and suppliers
- MPOs
- Law enforcement providers
- Firefighters
- Emergency medical services
- Highway designers, contractors and suppliers

THE NATIONAL ACADEMIES *Advisers to the Nation on Science, Engineering, and Medicine*

The nation turns to the National Academies—National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council—for independent, objective advice on issues that affect people's lives worldwide.
www.national-academies.org



500 Fifth Street, NW
Washington, DC 20001

202-334-3508
www.TRB.org/SHRP2



NEW TOOLS for Critical Issues in Transportation for the 21st Century



CRITICAL ISSUE

ENERGY, ENVIRONMENT, AND CLIMATE CHANGE REQUIRE NEW APPROACHES

SHRP 2 OUTCOMES

- **CAPACITY** – Systems for introducing environmental stewardship into the planning process
- **RENEWAL** – Lasting and high-performing pavements and highway facilities that reduce energy consumption, emissions, and noise, and use recycled material
- **RELIABILITY** – Processes and tools for managing highways to reduce congestion, energy use, and emissions

CRITICAL ISSUE

AGING INFRASTRUCTURE

SHRP 2 OUTCOMES

- **RENEWAL** – Innovative construction project- and risk-management techniques, and testing methods
- **CAPACITY** – Tools for providing a more effective and reliable project delivery process

CRITICAL ISSUE

HIGHWAY SAFETY

SHRP 2 OUTCOMES

- **SAFETY** – Relating driver behavior to road and driving environment conditions
- **RENEWAL** – Reduced worker fatigue and improved work zone safety
- **RELIABILITY** – Mitigation of temporary road hazards and improved emergency response

CRITICAL ISSUE

20TH CENTURY INSTITUTIONS MISMATCHED TO 21 CENTURY MISSIONS

SHRP 2 OUTCOMES

- **CAPACITY** – Tools for collaboratively reaching decisions that hold up over the planning process
- **RELIABILITY** – Methods for overcoming institutional barriers to innovation in highway operations
- **RENEWAL** – Best practices for integrating priorities across organizations

CRITICAL ISSUE

INCREASING CONGESTION

SHRP 2 OUTCOMES

- **CAPACITY** – A web-based framework for reaching highway capacity decisions that enhance the environment, the economy, and the community and improve transportation
- **RELIABILITY** – A framework and performance measures for improving travel time reliability
- **RENEWAL** – Systems for reducing disruption by accelerating bridge and pavement construction, extending the performance lives of facilities, and avoiding conflicts with utilities and railroads
- **SAFETY** – Rich stores of data to understand driving behavior and reduce crashes

