

Delivering value across a transportation agency

Bill Temple, chief engineer of the Louisiana Department of Transportation and Development, can name off the top of his head a dozen NCHRP research reports that his office uses on a regular basis to get its work done. Topics range from Superpave testing to pavement drainage issues, from access management to design-build contracting. However, when Temple did some asking around Louisiana DOTD, he found that his list was just the tip of the iceberg.



NCHRP research contributed to the accelerated design and construction of the new I-10 Twin Spans Bridge.

Serving Louisiana DOTD's engineers

To get a broader picture of how Louisiana DOTD uses NCHRP research, Temple asked division heads throughout the agency to identify NCHRP research products that they commonly rely upon. He received an impressive response, with some 150 reports cited by the Engineering Office alone, and 40 more by other areas of the agency.

Each part of the Engineering Office—spanning research, project development, construction, systems engineering, and traffic engineering—has examples to share. For instance, Project Development makes extensive use of NCHRP's load and resistance factor design research for bridge and structural design. Discussing recent rebuilding efforts on the Interstate 10 Twin Spans Bridge, Skip Paul, the director of the Louisiana Transportation Research Center, says, "The agency's design team never could have completed this work without relying on NCHRP research."

Systems Engineering is another frequent user of NCHRP research, calling upon many studies to support its mechanistic-empirical testing of state pavement materials and implementation of new design strategies. And NCHRP research studies are a standard reference for Pavement and Geotechnical Services' life cycle cost analyses. The list goes on.

Benefits across the agency

NCHRP's impact reaches beyond engineering and into virtually all areas of the agency. To name just a few:

- Highway Safety relies on NCHRP 500 Series guides for safety implementation and for data collection and analysis.
- Intelligent Transportation Systems has incorporated NCHRP research on traffic management centers into its statewide plans.
- Legal commonly uses NCHRP research on data management resources.

Small investment, large return

Louisiana DOTD enjoys a wide range of benefits from what Temple describes as a "flow of NCHRP material that arrives at our agency all year long." He estimates that Louisiana's annual voluntary contribution to NCHRP could by itself fund only a few research studies of a similar scope and magnitude. Pointing to all these NCHRP projects, Temple notes, "NCHRP is an extremely smart way for our department to leverage our research funding." Complementing the

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program's full-scale research projects is a variety of other research products cited by Louisiana DOTD division heads, including NCHRP synthesis reports, series 20-07 "quick response" studies, and Innovations Deserving Exploratory Analysis reports.

Growing intellectual capacity

Beyond practical guidance, NCHRP research delivers additional benefits to Louisiana DOTD. "NCHRP assembles the best and brightest around the table when investigating a topic," says chief engineer Temple. Louisiana DOTD actively encourages employees to participate on Transportation Research Board technical committees and on NCHRP research project panels. Says research director Paul, "This not only helps us address areas of concern, but we also build a network of contacts among experts and grow our intellectual capacity to be worldwide leaders in our field."

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Skip Paul (left), research director for Louisiana DOTD, is one of many users of NCHRP research reporting to Bill Temple (right), the agency's chief engineer.

NCHRP—Transportation research that works

Objective national highway research since 1962 • Focused on practical problems of state DOTs • Contract researchers competitively selected • Overseen by balanced panels of technical experts • Reviewed by TRB highway specialists

ACKNOWLEDGEMENT OF SPONSORSHIP Work was sponsored by the American Association of State Highway and Transportation Officials, in cooperation with the Federal Highway Administration, and was conducted in the National Cooperative Highway Research Program, which is administered by the Transportation Research Board of the National Academies.

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