LOUISIANA TRANSPORTATION RESEARCH CENTER

24-25 LTRC ANNUAL REPORT

Glenn Ledet
DOTD Secretary

Matthew R. Lee, Ph.D.
Interim LSU President

The Louisiana Transportation Research Center (LTRC), a division of the Louisiana Department of Transportation and Development (DOTD), functions as a regional center for research, technology transfer, and training, and is located on the campus of Louisiana State University (LSU). LTRC provides a setting in which the thresholds of technology can be explored and applied in practical ways. By merging the resources of DOTD and Louisiana universities, a versatile core of facilities and expertise addresses the rapidly evolving challenges in the transportation field.

LTRC also participates fully with universities in Louisiana that house engineering programs: Louisiana Tech University, McNeese State University, Southern University, Tulane University, University of Louisiana at Lafayette, and University of New Orleans. By combining their resources with those of DOTD, the center eliminates duplication of effort and provides a broader base of support. The center also provides an avenue for multi-disciplinary support from universities to meet the practical and academic needs of the transportation industry in such areas as engineering, law, business and management, basic sciences, planning, environmental studies, safety, ITS, leadership development, and technology transfer.

Since its creation by the Louisiana legislature in 1986, LTRC has gained national recognition through its efforts to improve transportation systems in Louisiana. The center is dedicated to conducting short- and long-term research; providing training, continuing education, and technology transfer; and offering problem-solving services and technical assistance to DOTD and the broader transportation community. The center is largely supported through funding authorized by DOTD and the Federal Highway Administration (FHWA).

The LTRC Foundation, a non-profit organization, enhances the center as the focus for transportation-related research, technology transfer, and education in Louisiana. The foundation provides an excellent partnership opportunity for DOTD, state universities, and the private sector.

In these and other ways, LTRC is paving the way for more efficient and beneficial research and training, thanks to a combination of modern techniques, locally available resources, and a wide pool of support.

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Read more about how LTRC recently put a Bentley grant into action by visiting schools across Louisiana to personally deliver $500 STEM awards to 15 teachers, allowing teachers to purchase STEM-specific materials used in classroom activities or lessons.

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Stay connected with us! Follow our social media channels to catch up on past highlights and stay updated on current programs, initiatives, and events. Join the conversation, see our impact in action, and be part of our growing online community.

Facilities

Located on the LSU campus in Baton Rouge, LTRC provides researchers and students access to excellent laboratories and state-of-the-art research equipment, as well as facilities to host a broad array of training and technology transfer opportunities.

LTRC houses approximately 90 employees and 30 students in two adjacent facilities. The LTRC Administration building is a 25,300-square-foot facility that includes five research laboratories, a conference room, and offices. The 14,000-square-foot Transportation Training and Education Center (TTEC) features a lecture hall, computer-based training classroom, two general-use classrooms, and an executive conference room, each equipped with state-of-the-art educational and training equipment, as well as distance learning/video-conferencing capabilities. Louisiana's premier transportation library is also located on site, offering an invaluable collection of resources for researchers, students, and others within the transportation industry.

LTRC's research program addresses complex transportation challenges through concentrated, specialized work supported by advanced laboratories and facilities, where research is conducted in asphalt, concrete, soils, pavements, and ITS. These include the Sustainable and Resilient Pavement Materials and Technologies Center (SRPC), focused on the evaluation and implementation of sustainable technologies in the transportation industry; Geotechnical Engineering Research Laboratory (GERL), focused on transportation earthworks, structural foundations, and geosynthetics; and the Intelligent Transportation Systems (ITS) Lab, designed to evaluate data collected from Louisiana's traffic management centers. Although remote from the center, the Louisiana Pavement Research Facility streamlines pavement-loading research by compressing years of road wear into months of testing. The six-acre facility, located west of the Mississippi River, includes an Accelerated Loading Facility (ALFTM) for testing flexible pavements and the ATLaS30 for testing rigid pavements.

LTRC's workforce development program strengthens Louisiana's transportation industry by delivering a broad and diverse array of training, professional development opportunities, and technology transfer. Each year, thousands of transportation professionals visit TTEC to receive specialized training in areas such as: technical and engineering fields, leadership development, safety, software applications, professional development, as well as other relevant topical areas. These offerings include nationally recognized programs from the National Highway Institute, ATSSA, and the Louisiana Technical Assistance Program, ensuring that both public- and private-sector professionals have access to the latest knowledge and skills needed to advance the state's transportation system.

The unique position of LTRC on the campus of a Carnegie Designated Doctoral/Research Extensive Institution enables its constituents to utilize virtually all of DOTD's and LSU's resources in pursuing the center's expansive research and workforce development mission.

LTRC is a budget division of the Louisiana Department of Transportation and Development. Funding is a combination of State Planning and Research (Part B, Federal), Innovative Bridge Research and Deployment (Federal), Surface Transportation Program (STP-Federal), and external contracts and grants, such as the National Cooperative Highway Research Program, Federal Agency Grants, and the National Science Foundation.

Chief Engineer's Message

This year's annual report marks not only another chapter of progress at the Louisiana Transportation Research Center (LTRC), but also a time of reflection and transition. After a decade of impactful leadership, Samuel B. Cooper, Jr., Ph.D., P.E. retired as LTRC's long-time director, leaving behind a legacy of dedication to research excellence, workforce development, and service to Louisiana's transportation community. His contributions helped position LTRC as a national leader in transportation research, workforce development, and technology transfer, and his influence will continue to be felt for years to come.

CHAD WINCHESTER, P.E., *Chief Engineer, DOTD*

Within the pages of this report, you'll find highlights of a highly productive year. From supporting student researchers and publishing technical resources to providing innovative workforce development programs and fostering partnerships, LTRC continues to serve as key contributor to transportation advancement in the state.

In 2024–2025, LTRC supported 46 undergraduate and graduate students, completed 15 research projects, and managed 47 ongoing projects. These efforts were linked to numerous academic theses and dissertations, along with more than 100 peer-reviewed publications and presentations, demonstrating both academic rigor and real-world application.

Other significant annual highlights include the following:

- Achieved 98.79% department-wide training compliance for the fiscal year.
- Partnered with Bentley Systems to distribute $500 grants to 15 K–12 schools statewide, supporting STEM learning and totaling $7,500.
- The Internal Training team standardized 47 training manuals and updated critical documents including PPM No. 59, the DOTD Course Catalog, and the DOTD Training Requirements Catalog.
- The External Training program reached over 8,500 individuals through 700+ initiatives, extending its impact across departmental, state, local, and private-sector partners.
- LTAP (Louisiana Local Technical Assistance Program) engaged 1,532 participants with 85% from local public agencies through 48 in-person and virtual classes, delivering more than 8,936 hours of instruction. LTAP also produced 4 *Technology Exchange* newsletters and 12 monthly digital bulletins.
- In the area of technology transfer, the Publications team published 18 final reports, 14 project capsules, 1 annual report, and 4 issues of *Technology Today*, along with 34 large-format posters, and 14 episodes of *The Driving Force* podcast. Film and production efforts supported 10 major DOTD projects.

Throughout the year, LTRC's influence reached far beyond research labs and classrooms. The center played a key role in equipping local agencies, state departments, and transportation professionals with the tools, data, and training needed to meet today's infrastructure challenges. From delivering hands-on technical assistance to accelerating innovation through applied research, LTRC's work enhances safety, efficiency, and sustainability across Louisiana's transportation system.

To stay connected with LTRC's ongoing initiatives and resources, visit www.ltrc.lsu.edu and follow us on Facebook, LinkedIn, X, and YouTube.

Respectfully submitted,

Chad Winchester, P.E.,
DOTD Chief Engineer

Research

The LTRC research program emphasizes applied research and technology transfer to further knowledge in the field of transportation and to solve transportation problems encountered by DOTD and the general transportation community. Input for research programs is solicited from state and local government, universities, and private industry.

Completed Research

Bituminous

17-4B: Development of a 4.75 mm Asphalt Mixture
Saman Salari, LTRC

19-2B: Development of a Moisture Sensitivity Test for Asphalt Mixtures
Louay Mohammad, LTRC

21-1B: Development of a Cyclic Semi-Circular Bend Test to Evaluate Asphalt Mixture Cracking Resistance at Intermediate Temperature
Louay Mohammad, LTRC

21-2B: Assessment of Long-Term Performance of Louisiana Asphalt Pavements
Louay Mohammad, LTRC

21-4B: Development of a Standard Practice for the Design of Durable Open-Graded Friction Course (OGFC) Mixtures with Epoxy Asphalt-Support Study
Louay Mohammad, LTRC

21-5B: Improvement of Open-Graded Friction Course (OGFC) Performance and Durability through Materials, Design, and Maintenance
Moses Akentuna, LTRC

Concrete

20-1C: Evaluation of the Miniature Concrete Prism Test (MCPT) for use in LADOTD
Zhen Liu, LTRC

22-2C: Optimizing Aggregate Gradation to Reduce Concrete's Permeability
Zhen Liu, LTRC

Pavement

20-4P: Assessment of LADOTD's Friction Aggregate Source Variations through Laboratory and Accelerated Testing
Zhong Wu, LTRC

Special Studies

22-4SS: Economic Impact of Access Management Treatments
Stephen Barnes, ULL

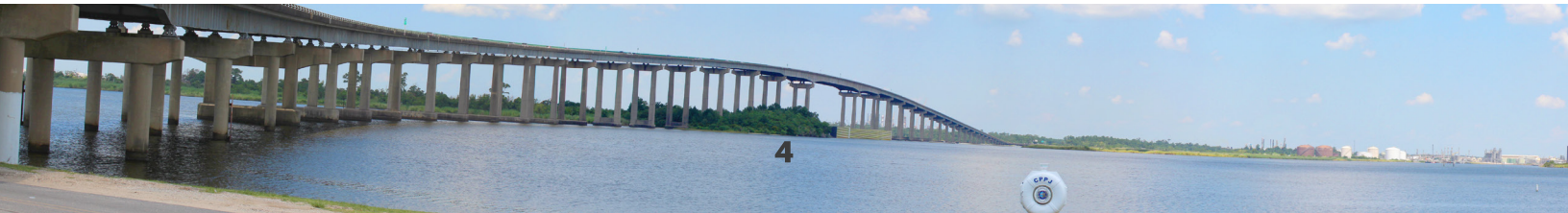
23-1SS: Safety and Traffic Operations at Cloverleaf Interchanges
Hany Hassan, LSU

22-3SS: Testing the Hurricane Evacuation Modeling Package (HEMP)
Ruijie "Rebecca" Bian, LTRC

23-5SS: Improved Incident Response through Coordinated, Interoperable Communications
Milhan Moomen, LTRC

Structures

22-2ST: Skew Detection System Replacement on Vertical Lift Bridges (Phase II)
Gareth Rees, WJE



Active Research

Bituminous

24-1B: Sustainability through Development of Life-Cycle Information Models for Pavements in Louisiana
Louay Mohammad, LTRC

23-4B: Literature Review of IDEAL-CT and IDEAL-RT Tests Methods for Balanced Mix Design
Saman Salari, LTRC

25-2B: Validation of SCB J_c Prediction Model and Aging Correction Factor
Moses Akentuna, LTRC

25-1B: Assessment of the PaveScan RDM for Continuous Density Measurements in Louisiana
Moses Akentuna, LTRC

Concrete

25-1C: Evaluation of T-Fast (TFHRC ASR Test) Test Method for Aggregate Acceptance
Zhen Liu, LTRC

24-1C: Investigation of Piezoelectric and Other Advanced Sensors in Concrete
Zhen Liu, LTRC

Geotechnical

24-4GT: Geotechnical Asset Management (GAM)–Phase II
Nick Ferguson, LTRC

24-3GT: Statewide Calibration of CPT Direct Design Methods Using Static Load Test Data
Murad Abu-Farsakh, LTRC

24-2GT: Web-Based Tool to Advance Geotechnical Data Interchange and Reliability-Based Site Characterization
Gavin Gautreau, LTRC

23-2GT: Field Evaluation of Geophysical Applications for DOTD
Nick Ferguson, LTRC

20-3GT: Development of a Design Methodology for Geosynthetic Reinforced Pavement using Finite Element Numerical Modeling
Murad Abu-Farsakh, LTRC

20-2GT: Instrumentation and Modeling of Geosynthetic Load Transfer Platform Performance
Murad Abu-Farsakh, LTRC

24-1GT: Evaluation and Incorporation of Site and Laboratory Variability into LRFD Design of Pile Foundations–Phase 2
Murad Abu-Farsakh, LTRC

23-1GT: LIDAR for Geotechnical Applications
Gavin Gautreau, LTRC

Pavement

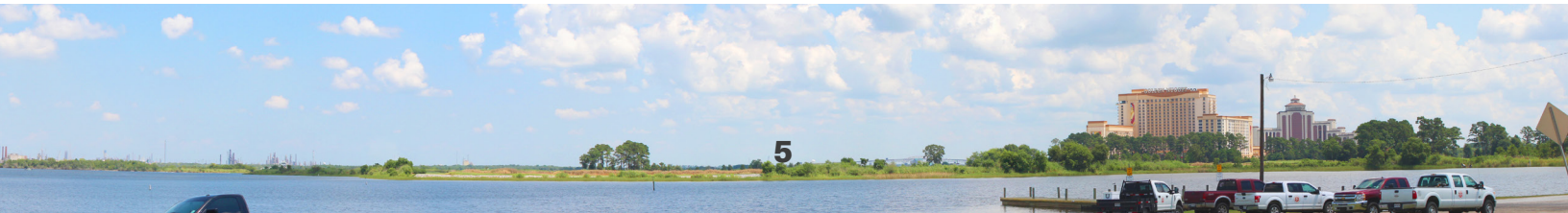
25-1P: Development of a Database for Successfully Performing Pavement Sections in Louisiana
Jun Liu, LTRC

24-2P: Developing a Methodology for Pavement Drainage System Rating
Qiming Chen, LTRC

24-1P: Evaluation of Louisiana Maintenance and Rehabilitation Treatment Decision Matrix for Cost-effective and Timely Pavement Preservation
Zhong Wu, LTRC

19-2P: Mechanistic Characterization of Asphalt Overlays for Pavement Rehabilitation and Preservation using Pavement ME Approach
Zhong Wu, LTRC

18-2P: Mitigating Joint Reflective Cracks using Stone Interlayers: Case Study on Louisiana Highway 5, Desoto Parish
Qiming Chen, LTRC



Active Research

Safety

25-1SA: Assessing Speeding-Related Crashes in Louisiana to Support the Safe System Approach
Milhan Moomen, LTRC

24-2SA: Older Road Users Safety in Louisiana: Understanding the Crash Contributing Factors
Elisabeta Mitran, LTRC

24-1SA: Ground-in Edge and Centerline Rumble Strip/ Rumble Stripe Evaluation and Best Practices
Hany Hassan, LSU

Special Studies

25-2SS: Truck Parking Shortage: Improving Efficiency and Identifying Opportunities
Bethany Stich, UNO

25-1SS: Complete Streets Means Trucks, Too: Integrating Freight Traffic Needs with Active Transportation Planning and Policy
Tara Tolford, UNO

24-6SS: Statewide Lane Reconfiguration "Road Diet" Screening for Louisiana
Ruijie "Rebecca" Bian, LTRC

24-4SS: Improved Signalized Intersection Performance Using Computer Vision and Artificial Intelligence
Milhan Moomen, LTRC

24-2SS: Trip Generation for Various Sites
Ruijie "Rebecca" Bian, LTRC

24-3SS: Evaluating Practical Applications of Unmanned Aerial Vehicles (UAVs) for Traffic Incident Response and Management
Milhan Moomen, LTRC

23-4SS: Statewide Non-Motorized Traffic Monitoring Study
Ruijie "Rebecca" Bian, LTRC

Structures

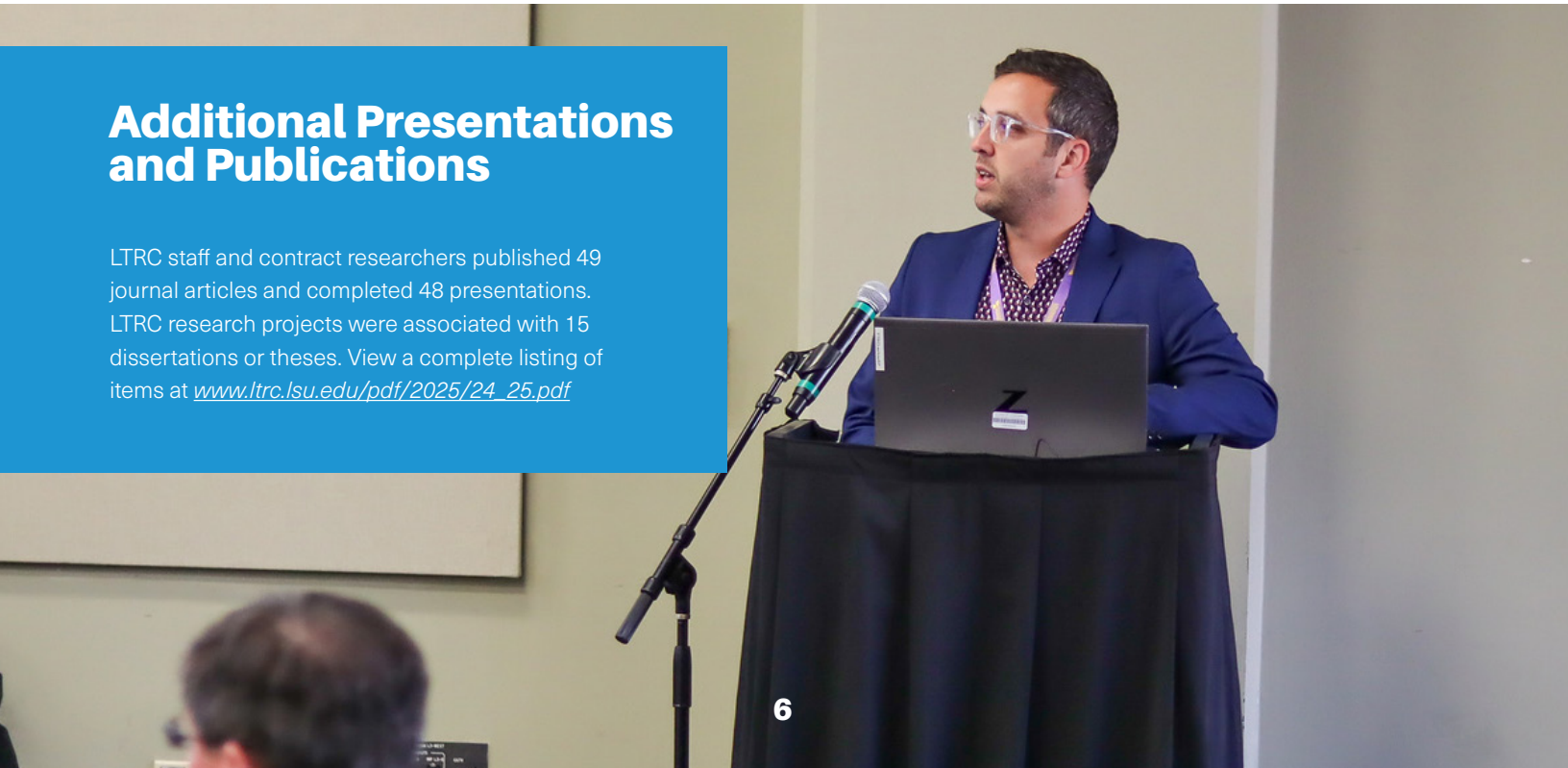
24-1ST: Ultra High Performance Concrete Application In Link Slabs For Crack Mitigation
Ayman Okeil, LSU

22-3ST: Evaluation of Embedded Pile Resistance on Scour Critical Bridges
Murad Abu-Farsakh, LTRC

24-2ST: Redesign of Innovative gate Arms (Ramp Closure Gate)
Sofokli Cakalli, Texas A&M

Additional Presentations and Publications

LTRC staff and contract researchers published 49 journal articles and completed 48 presentations. LTRC research projects were associated with 15 dissertations or theses. View a complete listing of items at *www.ltrc.lsu.edu/pdf/2025/24_25.pdf*



Access Management Treatment Research Reveals Minimal Economic Impact on Roadside Businesses

Access management treatments are essential in maintaining the safety and efficiency of Louisiana's roads. Treatments such as J-turns, right-in-right-out (RIRO) entrances, raised medians, and center turn lanes safely mitigate traffic flow and prevent potential crashes among vehicles, cyclists, and pedestrians. However, the owners of roadside businesses located near treatment installation sites are often hesitant about these projects, worrying that the altered traffic flow during and after construction will inconvenience their patrons. Researchers Stephen Barnes, Ph.D., Helmut Schneider, Ph.D., and Eric Mills took interest in the validity of these anticipated impacts, concluding that these projects do not economically harm businesses and can sometimes even yield positive results.

In their study, "Economic Impact of Access Management Treatments," Drs. Barnes and Schneider, along with Mills, analyzed the monthly business data from before, during, and after the construction of several access management treatments across Louisiana to determine their potential economic impact on surrounding businesses. They collected business sales data from two years prior to construction, the years during construction, and two years after the treatment was complete. Principal investigator Stephen Barnes explains: "Business data were categorized based on site location and proximity to treatment, and economic indicators such as unemployment rates and population estimates were

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LTRC Explores Innovative Test Method to Enhance Concrete Performance

Concrete is a crucial component in Louisiana's transportation infrastructure, utilized in the construction and maintenance of many of the state's roads, bridges, and other structures. One of concrete's primary vulnerabilities is the alkali-silica reaction (ASR), which can cause "alligator cracking" (also known as "map cracking" or "pattern cracking") over time, leading to costly repairs and potential safety concerns. For this reason, DOTD engineers are highly motivated to identify and implement the most efficient and effective test methods to evaluate ASR potential in its materials.

In response to this ongoing need, LTRC Concrete Research Manager Zhen Liu, Ph.D., P.E., recently completed a multi-year project assessing the suitability and potential adoption of an innovative test method called the Miniature Concrete Prism Test (MCPT). First published by the American Association of State Highway and Transportation Officials (AASHTO) in 2018, MCPT is advantageous for both its reliability and timeliness. Prior to the development of MCPT, the two tests most commonly used by industry researchers were the accelerated mortar bar test (AMBT), which is prone to produce false-positive or false-negative readings, and the concrete prism test (CPT), which yields much more reliable results but takes 1-2 years to produce. MCPT, by contrast, has been shown to yield accurate results in only 56 days, which significantly accelerates the evaluation process, leading to a more efficient completion of projects.

Dr. Liu, in partnership with fellow researchers Jose Milla, Ph.D., P.E., and William Saunders, E.I., designed and executed an extensive battery of laboratory tests over a one-year period, comparing and contrasting

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Workforce Development

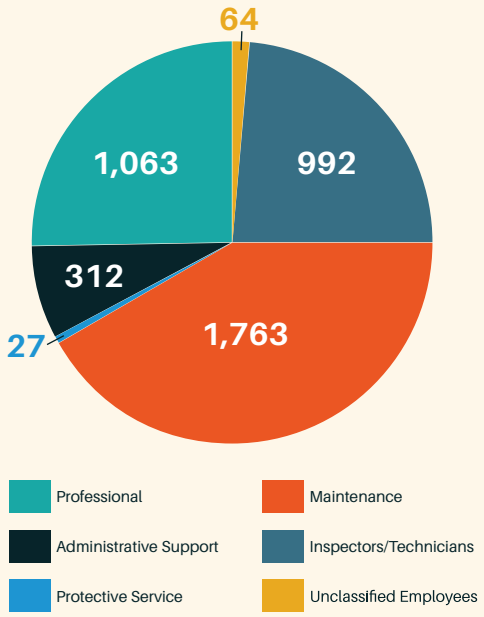
DOTD Internal Training Overview

DOTD policy states that all employees must be trained to execute their job responsibilities safely and efficiently. The department utilizes Structured Training Programs (STPs) to support and promote the philosophy that continual training is an integral component of career progression. Section 33 develops work-related training courses and designs STPs assigned at the Civil Service job code level that include safety training, technical skills training, professional development, and continuing education. The Internal Training Unit implements and refines training and workforce development programs for department employees across the inspection, technician, maintenance, administrative support, and professional communities. The Internal Training Unit synchronizes a highly effective network incorporating district training personnel and section training liaisons to ensure compliance with state and department training requirements.

The types of training assigned to each job community include:

- **Technicians**
  Safety Training, Structured Training, Technical Training, PC Computer Programs, Leadership Development Technician Program
- **Maintenance**
  Safety Training, Structured Training and Equipment Operator Certification Program
- **Protective Service**
  Peace Officer and Standards Training (POST), Leadership Development Program
- **Administrative Support**
  Safety Training, Structured Training, PC Computer Programs
- **Professional**
  Safety Training, Structured Training, Technical Training, Leadership Development Program

DOTD Job Categories



There are approximately 4,221 employees of the 4,320 assigned to the current DOTD Table of Organization (T/O).

*(*at the time of this publication)*

All employees must complete training required by Federal, Civil Service, and Department policies. All supervisors must complete the Civil Service Comprehensive Public Training Program (CPTP) Supervisory Training Program as required by state law.

Internal Training Unit

As part of LTRC Section 33, the Internal Training Unit maintains responsibility for planning, implementing, and managing structured training programs for DOTD employees. These programs provide technical and safety training to develop and sustain the construction, inspection, maintenance, and professional communities that make up the Department's workforce. Optimized training minimizes work disruption and maximizes employee success, providing the properly trained workforce essential to the design, construction, and maintenance of the state transportation system. The highly trained and experienced Internal Training Unit staff manages the following statewide programs:

- **Training Management Program** is responsible for the management and supervision of the learning management system (LMS), SuccessFactors, and the DOTD Training Records program (DTRN). This team creates and assigns all structured training programs to DOTD employees.
- **Construction & Materials Program** develops and manages the structured training requirements for more than 1,100 construction inspectors and laboratory and engineering technicians statewide. This team creates training courses, produces technical publications, facilitates instruction, and ensures these training programs are consistent with all specifications designated in the DOTD Standard Specifications for Roads and Bridges manual.
- **Maintenance and Operations Program** develops and manages the structured training requirements for more than 1,760 employees assigned to maintenance positions statewide. This team exercises supervision over the Maintenance and Operations, Work Zone Safety, and Loss Prevention training programs, and provides invaluable support to the Equipment Operator Certification Program.
- **Professional Development Programs** manages statewide professional development training plans assigned to all DOTD employees, ensuring compliance with all Federal requirements, state and Civil Service rules, and DOTD policies.
- **Headquarters Training Program** manages all training programs for more than 1,300 employees assigned to 49 sections across the DOTD Headquarters, to include 8 statewide units.

DOTD Workforce Development Initiatives

DOTD Secretary's Policy and Procedure Manual (PPM) 59, Workforce Development

PPM 59 establishes the DOTD approach to workforce development, establishing consistent training policies and procedures, clearly defining training requirements for all personnel and expanding on the mandates assigned in Louisiana Revised Statute 48:250.1.

DOTD Learning Management System (SuccessFactors)

The Division of Administration has directed all state agencies to utilize a statewide learning management system (LMS), SuccessFactors. In SuccessFactors, DOTD utilizes 641 items, organized into 100 distinct programs and 116 curricula, allocated to employees using 166 different assignment profiles.

DOTD Training Records (DTRN) Program

This website provides detailed reports and information extracted from SuccessFactors, enabling employees, supervisors, and training coordinators/liaisons to quickly view the training status of individual employees and units. The website provides training coordinators/liaisons with additional research and reporting tools that are not available in SuccessFactors.

DOTD Structured Training Programs (STPs)

DOTD Structured Training Program assignments are supported by 124 web-based training (WBT) courses, 55 instructor-led training (ILT) courses, 42 technical manuals, and 22 self-study guides that require proctored exams.

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Training Publications

DOTD Structured Training Programs are supported by 42 technical manuals and 22 self-study guides that require a proctored examination with a passing score.

Training Substitution Requests

Employees assigned to STPs may submit a training substitution request, supported with appropriate academic transcripts or training certificates, to LTRC for review and adjudication. In fiscal year 2024-25, LTRC approved 39 course substitutions for 15 employees.

Instructor Led Training (ILT)

Internal Training staff provide instruction to train or certify employees in various topics to include Facilitation Skills for Managers, Basic Flagging, and Maintenance Traffic Control Training. This past fiscal year, 4 instructors facilitated 26 training courses in support of 910 employees statewide.

Headquarters Exam Testing

During the past year, Internal Training proctored 116 exams for 115 employees over 21 testing sessions.

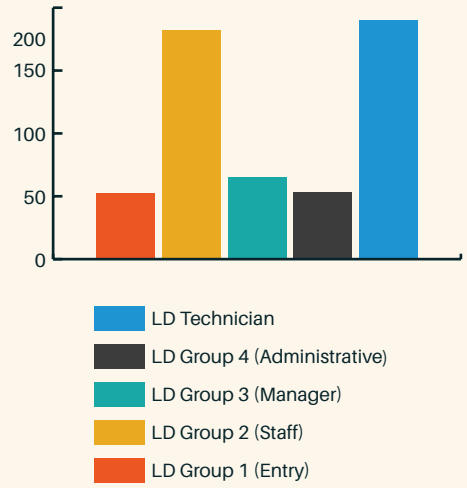
Headquarters New Employee/New Supervisor Orientation

Internal Training augments the monthly Human Resources New Employee Orientation and quarterly New Supervisor Orientation courses by providing information regarding training programs, individual employee responsibilities, and managerial responsibilities for unit training compliance. This year, Internal Training provided information to 96 new supervisors and 182 new employees assigned to Headquarters.

Leadership Development Structured Program Completions

Individuals are assigned to one of four levels of the Leadership Development Structured Program based on their position within the agency. The graph below reflects the number of department personnel who completed their assigned level during FY 2025.

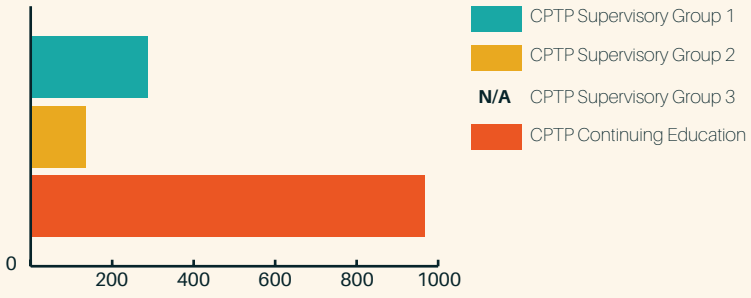
DOTD employees who completed assigned programs during FY 2025:

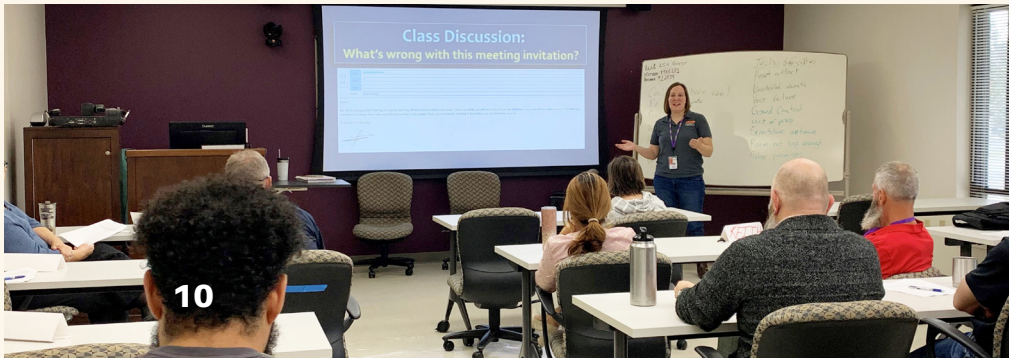


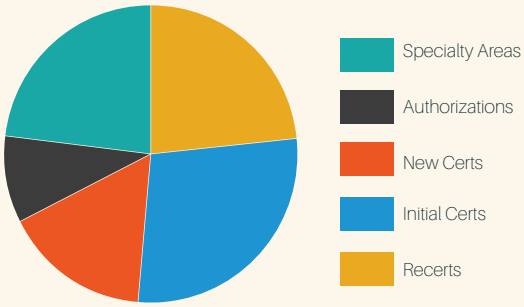
Comprehensive Public Training Program (CPTP) Supervisory Group Training Program Completions

The state Civil Service Commission has established minimal supervisory training requirements in accordance with Civil Service Rule 22.10 for all employees assigned to a Supervisory Group.

DOTD employees who completed assigned programs during FY 2025:







Construction and Materials Training Program

The Construction and Materials Training Program facilitated 200 Initial Certifications, 114 New Certifications, 165 Re-certifications, 66 Authorizations, and 162 Specialty Areas, resulting in a total of 707 department and industry accreditations during FY 2025.

Transportation Curriculum Council

The LTRC Transportation Curriculum Council (TCC) consists of 13 members incorporating senior DOTD leadership, Louisiana State University faculty, and transportation industry partners and include 6 subcommittees responsible for the areas of Engineering, Operations, Multimodal Transportation, Management and Finance, Leadership and Outreach, and Core Skills. The purpose of the TCC and its subcommittees is to advise and assist LTRC in the identification, prioritization, development, evaluation, and implementation of transportation related training, workforce development, educational services, and effective technology transfer for the agency and its transportation industry partners. The Associate Director of Technology Transfer and Training is responsible for planning and scheduling each TCC meeting, to include facilitating subcommittee meetings, maintaining detailed meeting minutes, and providing additional support as required.

Internal Training Accomplishments

- Monitored compliance of all DOTD and Civil Service assigned training, conducting outreach and coordination and providing reports to leadership as required by legislative, State Civil Service (SCS), or department policy.
  - Achieved a 98.79% compliance rate for Fiscal Year 2024-25
  - Achieved a 99.71% compliance rate for Calendar Year 2024
  - Current training compliance rate for Calendar Year 2025 is 93%
- Change to calendar year reporting required with transition to the Continuous Performance Management evaluation program.
- Adjusted programs and curricula at the beginning of calendar year 2025 to comply with training policy updates from State Civil Service (SCS) and to comply with the requirements of the Continuous Performance Management (CPM) evaluation program.
- Standardized formats, subject titles, and cover sheets for 47 Structured Training manuals.
- Revised DOTD Policy and Procedures Manual (PPM) # 59, Workforce Development, to reflect updated training policy, the implementation of SuccessFactors, and the introduction of the Continuous Performance Management (CPM) evaluation system.
  - PPM is currently awaiting DOTD Standing Committee on Human Resources (SCHR) review and approval.
- Revised the DOTD Course Catalog.
- Currently revising the DOTD Training Requirements Catalog.
- Continuing the revision of DOTD Construction manuals.
- 5 of 10 construction manuals updated during the past 2 fiscal years:
  - DOTD STC ACM Paving Inspection Vol 1
  - DOTD STC ACM Paving Inspection Vol 2
  - DOTD STC ACM Plant Inspection
  - DOTD STC PCC Paving Inspection
  - DOTD STC PCC Plant Inspection
- 4 manuals currently in revision
  - DOTD STC Basic Pipe Installation
  - DOTD STC Pile Driving
  - DOTD STC Structural

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Concrete Vol 1 (pending PCC QA Manual update)
  - DOTD STC Structural Concrete Vol 2 (pending PCC QA Manual update)
- 1 manual awaiting revision
  - DOTD STC Embankment and Basecourse
- Revised the publications ordering process to eliminate duplication of effort, utilizing "just in time logistics" to order publications directly from Reproduction. This effort eliminates order backlog, excess inventory, and use of dated material.
- Removed all publications from DOTD Warehouse and distributed to districts.

Student Support

During the 2024-25 fiscal year, a total of 46 students, both undergraduate and graduate, contributed to various research projects and provided support in areas such as publication preparation, office tasks, laboratory assistance, and building/event operations. Their involvement played a vital role in the success of our initiatives.

Statewide Strategic Programs

DOTD KPIs

In partnership with DOTD executive staff and the Garver-Rawlins team, an LTRC team is leading the transformation initiative to develop comprehensive department, district, and section-level Key Performance Indicators (KPIs). Through the identification of national best practices that are in alignment with the Department, KPIs were then developed to meet the objectives laid out in the DOTD Strategic Improvement Plan. This initiative enables each individual section to define and measure their specific goals and objectives and how they are tied to Department-wide outcomes.

Competency Model

Through the Competency Model project, LTRC individually meets with various sections throughout DOTD in order to develop a comprehensive list of technical competencies unique to each section. This list is created through interviews, reviewing necessary literature, and in-depth research. Training initiatives are then matched to each competency to meet any deficiencies of knowledge or practice that may exist. Any competencies with gaps or minimal matches may support a need for future training to be developed. Ultimately, LTRC helps the section create a structure of knowledge transfer that will flatten any learning curve for employees in their section.

EDC-7 Initiative

LTRC, LTAP, DOTD, and FHWA are working to meet the goals of the Every Day Counts 7: Strategic Workforce Development initiative. In partnership with the committee and other local agencies and contractors, DOTD will identify, train, place, and retain current and future needs for the highway construction field.

DOTD External Training Overview

LTRC is committed to being a leader in workforce development. As LTRC's research section continues to focus on the future of transportation technology, the technology transfer and training section maintains its roots in the present—in making practical application of research's technological innovations and transferring them to the transportation community through aggressive implementation, various training methods, and educational activities.

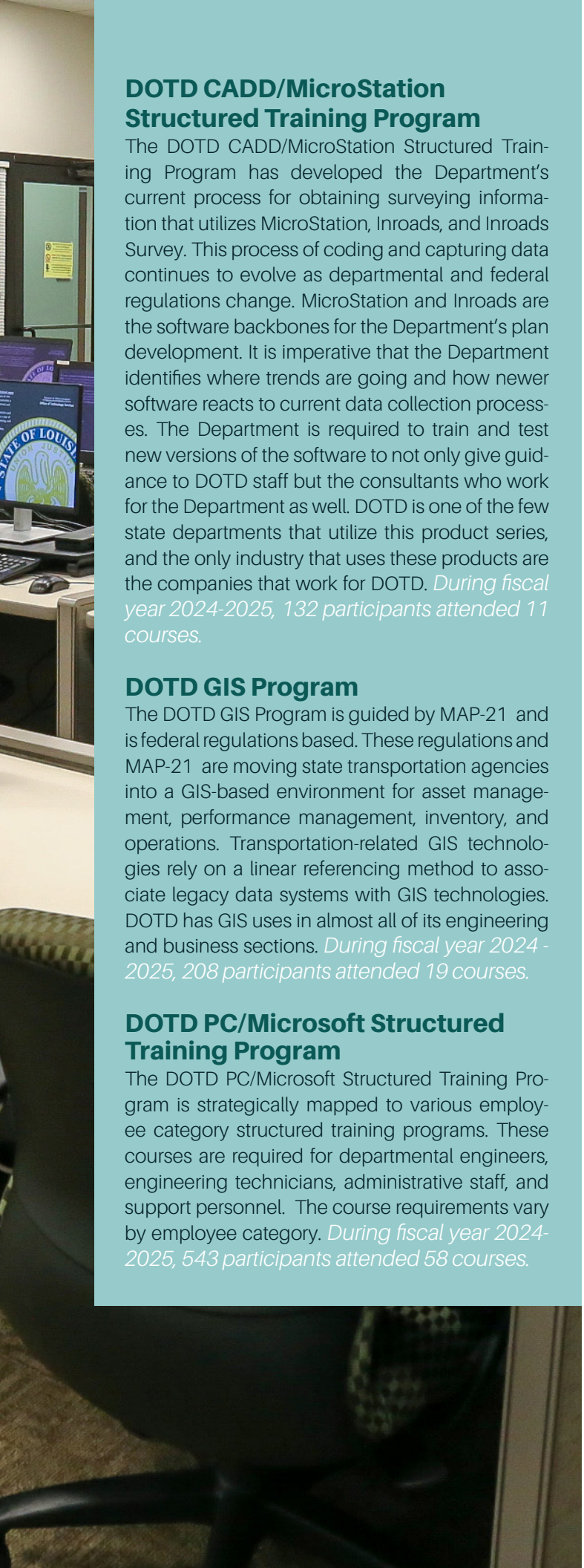
In fiscal year 2024- 2025, the DOTD External Programs impacted over 8,500 individuals (departmental, state, local, university, and transportation community).

DOTD National Highway Institute Program

The National Highway Institute Program offers courses in an extensive variety of Program Areas, ranging from Highway Safety to Hydraulics to Financial Management. The programmatic areas are offered statewide to DOTD employees, municipal employees, private engineering firms, and other transportation partners. These areas include, but are not limited to, the following: Asset Management, Business, Public Administration and Quality, Civil Rights, Communications, Construction and Maintenance, Design and Traffic Operations, Environment, Financial Management, Freight and Transportation Logistics, Geotechnical, Highway Safety, Hydraulics, Intelligent Transportation Systems (ITS), Pavement and Materials, Real Estate, Structures, Transportation Performance Management, and Transportation Planning.

This program has various courses that are required in Departmental structured training programs. A sample listing of these required courses are as follows, but not limited to: Bridge Inspection Refresher; Fracture Critical Inspection of Steel Bridges; Managing Highway Contract Claims; Safety Inspection of In-Service Bridges; Writing Highway Construction Specifications. These courses address Louisiana-specific material while also incorporating the necessary federal guidelines.

Fiscal Year 2024-2025 National Highway Institute (NHI) Course Offerings	Participants
NHI Course No. 132103 *(Pilot Course)* — Implementation of Geotechnical Asset Management (GAM)	18
NHI Course No. 380120 — Introducing Human Factors in Roadway Design and Operation	20
NHI Course No. 130055 — Safety Inspection of In-Service Bridges	31
NHI Course No. No. 132070 — Drilled Shaft Foundation Inspection	15
NHI Course No. No. 130053 — Bridge Inspection Refresher	35
Total	**119**



DOTD CADD/MicroStation Structured Training Program

The DOTD CADD/MicroStation Structured Training Program has developed the Department's current process for obtaining surveying information that utilizes MicroStation, Inroads, and Inroads Survey. This process of coding and capturing data continues to evolve as departmental and federal regulations change. MicroStation and Inroads are the software backbones for the Department's plan development. It is imperative that the Department identifies where trends are going and how newer software reacts to current data collection processes. The Department is required to train and test new versions of the software to not only give guidance to DOTD staff but the consultants who work for the Department as well. DOTD is one of the few state departments that utilize this product series, and the only industry that uses these products are the companies that work for DOTD. *During fiscal year 2024-2025, 132 participants attended 11 courses.*

DOTD GIS Program

The DOTD GIS Program is guided by MAP-21 and is federal regulations based. These regulations and MAP-21 are moving state transportation agencies into a GIS-based environment for asset management, performance management, inventory, and operations. Transportation-related GIS technologies rely on a linear referencing method to associate legacy data systems with GIS technologies. DOTD has GIS uses in almost all of its engineering and business sections. *During fiscal year 2024 - 2025, 208 participants attended 19 courses.*

DOTD PC/Microsoft Structured Training Program

The DOTD PC/Microsoft Structured Training Program is strategically mapped to various employee category structured training programs. These courses are required for departmental engineers, engineering technicians, administrative staff, and support personnel. The course requirements vary by employee category. *During fiscal year 2024-2025, 543 participants attended 58 courses.*

DOTD Work Zone Safety Program and DOTD District Sign Specialists' Certification Program

Through the DOTD Work Zone Safety Program, the following Louisiana-specific courses are required for departmental employees and any other non-departmental entity that will work on a departmental project: Louisiana Traffic Control Technician; Louisiana Traffic Control Supervisor; Louisiana Traffic Control Design Specialist; Louisiana Guardrail Installation Training; and Louisiana Nighttime Traffic Control.

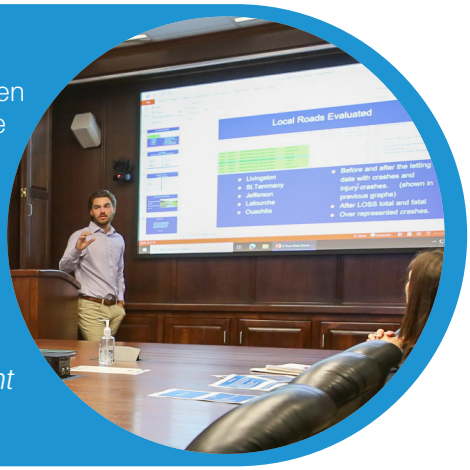
Work Zone Safety classes are required for contractor, consultant, and DOTD personnel. This is to inform workers about safety procedures and improve worker knowledge in order to avoid injury during their daily employment activities. Through these efforts, this also enables highway workers to provide for the safety of motorists, workers, and pedestrians. In contract documents for the contractors and consultants, the verbiage specifically states they must have Louisiana-specific training as it relates to the MUTCD, and the DOTD Work Zone Safety Program provides this specific training through a contract with ATSSA, the only organization that offers this Louisiana-specific training. The contract for services contains language on the Louisiana Standard Specifications, the Special Provisions, the Supplemental Specifications, and the Louisiana Specific Traffic Control Details. Also within the contract, there are specific requirements and consequences for contractors not having Louisiana-specific training.

The DOTD District Sign Specialists' Certification Program plays a critical role in Traffic Operations. Not only must these employees perform manual labor and operate equipment, they must know, understand, and apply critical traffic engineering principles and details of sign installation as outlined in the *Manual on Uniform Traffic Control Devices*. In addition, District Sign Specialists are required to testify in court, and this ATSSA certification covers trial and deposition testimony. *During fiscal year 2024 - 2025, 412 participants attended 20 courses.*

DOTD Co-op Program

The DOTD Co-op Program is a cooperative endeavor between DOTD and seven Louisiana universities with engineering departments. It provides practical experience to civil, mechanical, environmental, electrical, industrial, and chemical engineering students through employment in public sector transportation engineering work and allows DOTD to evaluate participants as potential employees. To participate, students must have the endorsement of their university and be classified as juniors or seniors. They are employed year-round in positions related to their major field of study and must give a presentation at the end of the semester or quarter.

In fiscal year 2024-2025, 16 students participated in the summer, 15 in the fall, and 15 in the spring. Four students were hired full time by the Department after graduation.



Engineering Rotational Development Program (ERDP)

This program provides new engineers with an invaluable introduction to DOTD employment.The ERDP is a 32-week rotation program designed to offer entry-level engineers an opportunity to experience several engineering functional areas within DOTD prior to placement.

After orientation at LTRC, new hires spend 1 to 3 weeks in 19 different sections. To be employed into the ERDP, the applicant has to have successfully passed the Fundamentals of Engineering (FE) exam in and hold an active Engineering Intern License through LAPELS.

During fiscal year 2024-2025, 1 new hire participated in the ERDP, with 1 hired into a permanent position in the Department.

Leadership Development Program (LDP)

This program provides participants a process of continuous learning and the ability to apply the leadership methods discussed. In addition, the Leadership Development Program aims for everyone within the Department to adopt new behaviors and beliefs toward effective leadership and extend them to the highest levels of achievement.

The goal of this program is to introduce and promote competencies that will empower participants to recognize and improve their leadership skills. The courses include: Foundations of Leadership, Emotional Intelligence, Organizational Culture, Transformational Leadership & Managing Across Generations, Professional Writing, and Conflict Management.

During fiscal year 2024-2025, 710 people participated in 46 LDP courses.

Louisiana Transportation Conference

Every two years, representatives from all sectors of the transportation community come together to learn about the latest technologies and share best practices at DOTD/LTRC's Louisiana Transportation Conference.

This biennial conference is held in Baton Rouge and represents a premier technology transfer opportunity for LTRC, which is charged with planning, coordinating, and managing the conference that attracts professionals from the entire nation.

In 2025, the LTC hosted 1,500 attendees and vendors. Attendees had the opportunity to attend technical sessions receiving up to 15 professional development hours.

DOTD—Other Programs

Specialized Title 48 and 39 programs are managed via contract with various vendors through the External Training Programs. In addition, External Training also manages pilot and other no-cost courses through training requests. A small listing of the courses and contracts that are directed through the DOTD External Training Programs include:

- Traffic Engineering Process & Report, Ethics for Professional Engineers, Blue Marble Global Mapper, Pavement Striper, Indirect Cost, DC Electrical, and Electrical Safety

Other Courses, Workshops, and Events

Fiscal Year 2024– 2025 Course Offerings	Participants
Professionalism and Ethics	174
AASHTO STEM Outreach Solutions Programs	16
PE Review 2025	17
Individual Registrations	431 (196 courses/events)
Traffic Engineering Process and Report (TEPR)	45
Pavement Striper	41
Blue Marble Global Mapper	24
DC Electric NFPI (Two Roses)	15
Electrical Safety JM Test	15
Indirect Cost (MH Miles)	6
Foundational Vehicle to Everything V2X	37
Crash Analysis	79
Safety Data	81
Statewide Systems Engineering Analysis Project	22
ASMSE Association for Mechanically Stabilized Earth	19
Crowdsourcing for Advancing Transportation Operations	33
Radiation Safety	19
Total	1,074

Additional Accomplishments

- FHWA Grant awarded in the amount of $52,085 for implementation and evaluation of AASHTO STEM Outreach Solutions Programs in Schools in Louisiana.
- Updated AV system in LTRC Executive conference room
- Security camera server upgrade
- Hearing Impairment assistance added in training classrooms
- TTEC Control System Programing updated in training rooms and added wireless Bring Your Own Device solution
- Multi-input rack mounted monitors added in both server rooms
- Building improvements—painting inside through and outside of building, added chair rails in classrooms
- Cataloging of materials in the library (139 Titles Cataloged/609 Titles updated)
- Recycling physical materials in the library that are available online
- Shifting materials in the library stacks to make room for additional materials
- Updated OPAC (public facing online catalog) to new LTRC web design
- Upgraded room reservation system to Mazevo from EMS
- Renewed: ASTM Standards, AASHTO Publications via Engineering Workbench, EOS.web, movable library stack maintenance, Articulate 360, NetSupport-Softlink, Mazevo, and Visix/Axis TV
- Distribution of 15, $500 grants through Bentley Systems 15 Louisiana STEM teachers across the state.

New LTRC Podcast Hits the Airwaves

In January 2025, LTRC launched an exciting new technology transfer project, "The Driving Force" podcast. Hosted and produced by Statewide Strategic Program Manager Garrett Wheat and Manager of Technical Publications Todd Blount, the podcast highlights the important initiatives happening at LTRC and beyond. Each episode features an interview with one or more guests from LTRC's staff or another DOTD section, profiling what they do and how it positively impacts the transportation community across Louisiana. Thus far, the show has highlighted multiple Section 33 functions (Co-op/ERDP, Structured Training Program, LTAP, and more), as well as DOTD's Innovative Procurement and Multimodal Commerce sections. Drs. Wheat and Blount produced a total of 14 episodes in FY 24-25, with biweekly episode releases planned for FY 25-26 as well. The podcast can be found on Apple, Spotify, or LTRC's YouTube channel.

LTRC Awards STEM Teachers Statewide

LTRC recently received a $25,000 grant from Bentley Systems, Inc. to strengthen education outreach in both K-12 and higher education. This grant will be distributed over the course of two years. Of the total for this year's funds, $7,500 was distributed as $500 awards to Louisiana STEM teachers who have participated in LTRC's AASHTO STEM Outreach Solutions program.

LTRC staff personally visited each school to hand-deliver the awards, meeting with teachers to celebrate the importance of hands-on STEM learning. The remaining $10,000 for this year provides travel scholarships for Louisiana civil engineering graduate students invited to present their research at national conferences. These scholarships, up to $1,000 each, help defray travel costs and expand opportunities for academic engagement. LTRC is grateful to Bentley for supporting STEM education and fostering the next generation of transportation professionals.

Co-op & ERDP Alumni Share Career Success

LTRC's Publications Team recently caught up with four program alumni—Corey Mayeaux, Hadi Shirazi, Mathilda Rilovich, and Justin Schexnayder—who shared how these opportunities launched their careers, broadened their skills, and inspired their commitment to public service.

From building professional networks to discovering unexpected career paths, their experiences highlight the programs' value in shaping capable, passionate engineers ready to contribute to Louisiana's transportation future.

Schexnayder explained, "The most rewarding aspect of my time in the program was the relationships that I built. I had the opportunity to work alongside people from all over the world, gaining insights into their diverse cultures and research perspectives. These connections had endured over the years, and I still enjoy reconnecting with many of them at engineering conferences and events."

Tech Transfer: Publications and Multimedia

Through video, publication, and web development, this office expands LTRC's reach by disseminating information and sharing knowledge that spans from emerging research and technology to the grassroots level of application.

Quick Numbers

- **4** LTAP Tech Exchange Newsletter
- **4** LTRC Tech Today Newsletter
- **14** Project Capsules
- **18** Final Reports/Tech Summaries
- **1** Annual Report
- **34** Large Format Posters
- **10** Videos Produced
- **14** Episodes of The Driving Force Podcast

Social Media Posts: 124

(83,250 impressions on LinkedIn)

- **2,170 subscribers** ↑ *19% increase*
- **1,367 followers** ↑ *30% increase*
- **1,044 followers** ↑ *5% increase*
- **201 followers**

Project Highlights

- Software management and purchasing for Sections 19 and 33
- Scholarship application management and press releases (SASHTO, ASCE, LAPA)
- Document accessibility
  - Enforced Section 508 requirements on document templates
  - Created training for Section 33 on accessibility requirements
  - Managed disclaimer watermarks and requirements
  - Maintained document information form for library liaison
- Managed LTRC Registration Management System; initiated development of system upgrades
- Created Adobe Express pages to share on social media for LTRC and LTAP
- Created and designed Constant Contact emails to disseminate Tech Todays electronically; manage interdepartmental mailing list to reflect new leadership and section heads
- 2025 Louisiana Transportation Conference: event registration management, event marketing, trade show/sponsorship coordination, mobile app creation and management, sign production
- Special Event Photography: ROADEO, LTC 2025, LTAP Successful Supervision
- Special projects for DOTD Executive Leadership
- Wrote, recorded, edited, and published 14 episodes of "The Driving Force" podcast

Film and Production Projects

- Volumetric Truck Calibration—DOTD
- AASHTO T316: Viscosity Tester—DOTD
- LPA/CEI Recording—LTAP
- Annual Report Video Supplemental: Section 33 and Section 19 Program Spotlight—LTRC
- Cyclic/SCB Test Incorporating Digital Image Correlation—LTRC
- Highway Safety Training/Work Zone Safety—LTRC
- Gulf Research Program-Pitch video—LTRC
- ArcGis Permit Instructional video—DOTD
- College Flyover Reroute video—DOTD
- I10-210 Calcasieu Bridge Google Map Animations—DOTD

Access management continued from page 7

integrated from government sources using R Programming software." Information was also collected from sources such as the Louisiana Department of Revenue, regional unemployment rates, and population estimates.

The second part of this study concerned customers' perception of the treatments. To obtain this information, researchers conducted a series of over-the-phone and in-person surveys from both business owners and patrons. Patron surveys concluded that traffic projects such as access management treatments have no effect on pricing, customer service, and product quality; therefore, the inaccessibility of business entrances served merely as a minor inconvenience. Dr. Barnes emphasizes these findings: "Perception survey results further support the notion that access management projects support regional economic development, and that businesses and patrons exhibit resilience and adaptability to the changes brought about by the access management projects."

The conclusions of this project have the potential to shift the attitudes business owners hold toward traffic construction projects like access management treatments, revealing they can indeed create a safer environment for all road users while also maintaining the economic wellbeing of nearby businesses. Additionally, the process of data collection from the surrounding businesses develops and enhances trust between DOTD and business owners and provides feedback that can further improve access management strategies. As Dr. Barnes concludes, "The findings can be used by planners to engage the business community and general public to create a more collaborative environment for advancing projects that can improve safety and efficiency in the movement of traffic (across Louisiana)."

Concrete continued from page 7

the results of the MCPT with those of the AMBT and CPT with the goal of evaluating its reliability in assessing ASR potential. A diverse array of 24 aggregates known to be potentially reactive were chosen, along with two control samples, ultimately producing a total of 96 unique mixtures for the research team's evaluation. These samples were measured at 7, 28, and 56 days, as well as at 3, 6, 9, and 12 months, to assess their susceptibility to ASR. All tests were completed in accordance with the standards outlined by AASHTO and the American Society for Testing and Materials (ASTM).

The results from these tests yielded promising results overall. Drs. Liu and Milla, along with Saunders, found the MCPT and CPT methods produced an impressive 95.8% agreement rate for aggregate evaluation. Additionally, the team evaluated 33 of the mixtures for ASR mitigation strategies, revealing a 79% agreement rate between the MCPT and CPT methods. Based on these results, the researchers recommended that DOTD adopt the MCPT method to evaluate ASR reactivity for all coarse aggregates used in the state's transportation system, as well as for fine aggregates that do not exceed a 0.30% expansion rate from the AMBT method.

Dr. Liu highlighted the significance and potential impact of these findings: "The Miniature Concrete Prism Test (MCPT) provides Louisiana's engineers with a useful new tool to produce reliable results for the routine assessment of an aggregate's alkali-silica reactivity over a much shorter period of time. By utilizing this test, suppliers no longer have to wait 12 months or more to receive the results they need."

Featured in Tech Today

LTAP

The Local Technical Assistance Program (LTAP) is a nationwide initiative that aims to provide cost-effective training, technical assistance, and technology transfer services to help local public agencies—parishes and municipalities in Louisiana—in managing and maintaining their roadway systems.

This year, Genevieve Amick joined the Louisiana LTAP team as a Teaching Associate, bringing her training expertise to the program. Courtney Dupre, Program Manager, has been appointed as the new facilitator of the National LTAP Association's Mentorship Program. Rudynah Capone, Director, has been selected as a panel member for the TRB's Transportation Cooperative Research Project (TCRP) Project: B-57 Innovative Marketing and Customer Communication Strategies for Rural Transit.

Strong Demand for Training

Between July 2024 and June 2025, LTAP continued to find a strong demand for training, with several courses attracting large audiences. Notable among these were Chainsaw Safety, Precision Felling and Maintenance, which drew 283 participants; Roads Scholar #5: Safety - A Common Sense Approach for the Public Works Professionals, with 243 participants; and Roads Scholar #8: Successful Supervision for Local Road Supervisors, attended by 168 participants. The 2024 LPESA Fall Conference (133 participants) and Work Zone Safety with Basic Flagging Mini-workshops (126 participants) also proved highly popular, underscoring the appetite for both technical and leadership-focused content.

Local Road Safety Program

The three LRSP Implementation Workshops held in October 2024 played a crucial role in guiding parishes and municipalities through the project submission process, encouraging them to submit Letter of Intent (LOI) pre-applications. Following the Virtual Call in November 2024, over 30 agencies participated by submitting proposed locations for road safety improvements. These submissions are now under further review using a local network-screening tool, which assesses injury and fatal crash locations.

Excellence in Course Quality

Several offerings, including the Pavement Preservation Workshop in Livingston Parish, LPESA Fall Conference in Ruston, LPESA Virtual Showcase, and LRSP Virtual Call for Letter of Intent (LOI) Pre-Applications, achieved perfect satisfaction scores of 5.0. Other standout courses such as the Local Road Safety Implementation Workshop (4.90) and APWA Heavy Equipment & Tractor/Mower Safety Training (4.75) further reinforced the program's reputation for excellence.

Strengthening Skills, Expanding Horizons

Overall, participant feedback remained very positive, but as with any program, there are always opportunities to grow. A few courses—such as Work Zone Safety with Basic Flagging and the LPA Construction, Engineering, and Inspection Course—received satisfaction scores closer to 4.5, signaling room for refinement.

LTAP conducted a training survey and Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis of the Roads Scholar Program. Insights from these efforts offered a wealth of helpful feedback, spotlighting both strengths and opportunities for improvement. This input is already informing how the team approaches future course planning and delivery. To keep the program fresh and aligned with participant needs, LTAP will expand its scope of technical offerings while exploring possibilities for new classes on leadership and management.

LOUISIANA LTAP LOCAL TECHNICAL ASSISTANCE PROGRAM

Year in Review

July 2024 to June 2025

48 classes & conferences

Class topics included roadway preservation, equipment operation, and work zone safety to construction inspection, chainsaw operation, successful supervision, and local road safety planning.

1,532 attendees

Approximately 85% of participants hailed from local parishes and municipalities.

8,936 contact hours

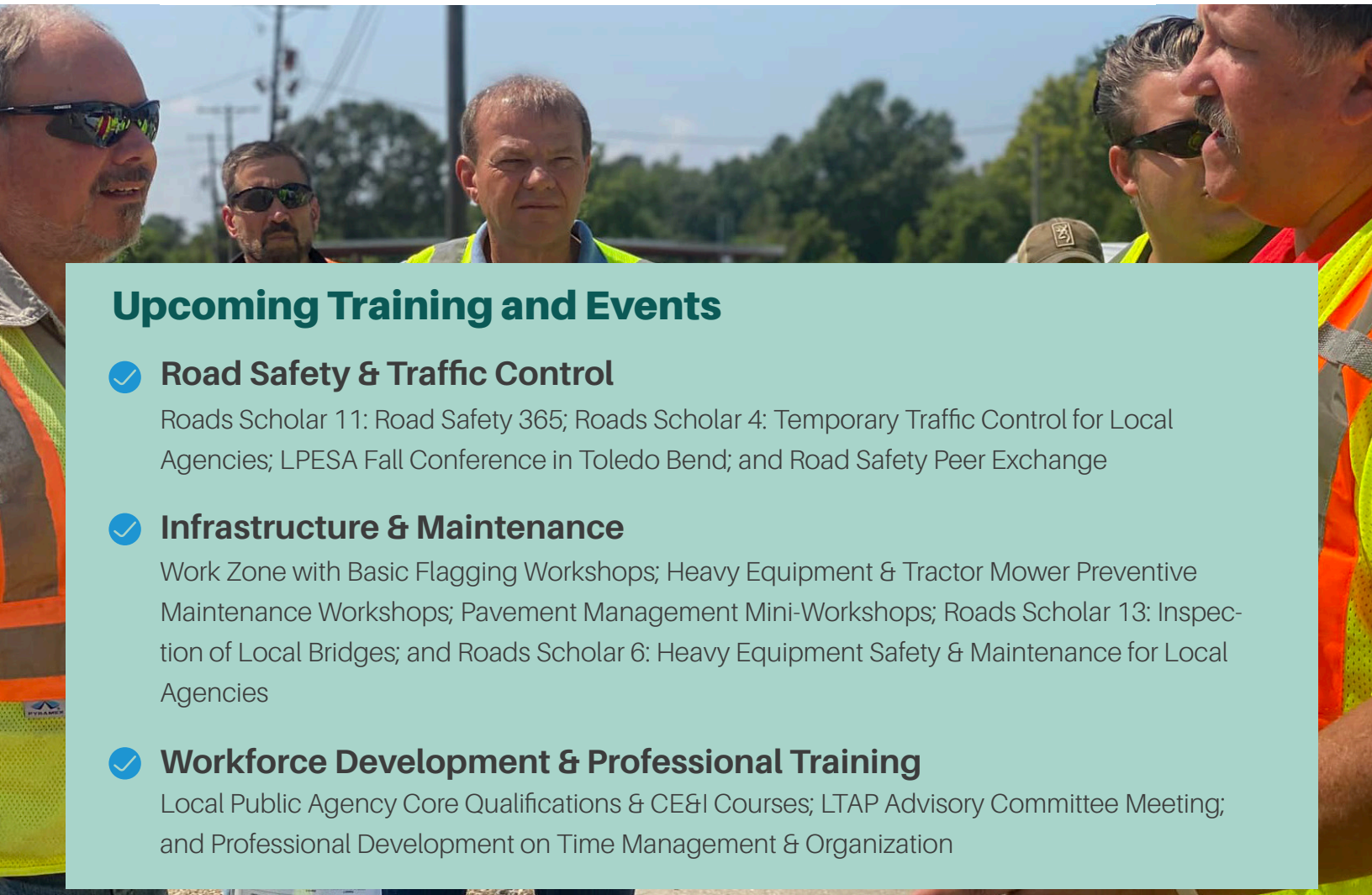
Among the most in-demand offerings, the Chainsaw Safety classes led in total training hours, followed by Common Sense Approach to Safety and Heavy Equipment sessions.

4.76/5 average rating

Feedback remained overwhelmingly positive, with participants rating courses an average of 4.76 out of 5, underscoring the value and relevance of the training content.

Looking Ahead

LTAP is expanding its technical course offerings and piloting new classes on time management and organization, practical conflict management, and effective communication.



Upcoming Training and Events

Road Safety & Traffic Control

Roads Scholar 11: Road Safety 365; Roads Scholar 4: Temporary Traffic Control for Local Agencies; LPESA Fall Conference in Toledo Bend; and Road Safety Peer Exchange

Infrastructure & Maintenance

Work Zone with Basic Flagging Workshops; Heavy Equipment & Tractor Mower Preventive Maintenance Workshops; Pavement Management Mini-Workshops; Roads Scholar 13: Inspection of Local Bridges; and Roads Scholar 6: Heavy Equipment Safety & Maintenance for Local Agencies

Workforce Development & Professional Training

Local Public Agency Core Qualifications & CE&I Courses; LTAP Advisory Committee Meeting; and Professional Development on Time Management & Organization

Professional Memberships

Transportation Research Board (TRB) Affiliations

- ABG20 – Transportation Education and Training
- ACD16 – Human Factors
- ACD18 – Pedestrians
- ACF11 – Traffic Flow Theory, Models, and Simulation
- ACF12 – Traffic Control Devices and Work Zone Management
- ACF16 – Traffic Incident and Emergency Operations Management
- ACF17 – Connected and Automated Vehicle Systems
- ACH30 – Human Factors of Vehicles
- ACS20 – Safety Performance and Analysis
- ACP15 – Intelligent Transportation Systems
- ACP40 – Highway Capacity and Quality of Service
- AED12 – Computational Methods and Analytics
- AED13 – Freight Data
- AED50 – Artificial Intelligence and Advanced Computing Applications
- AED60 – Statistical and Econometric Methods
- AEP11 – Transportation Planning Policy and Analysis
- AEP12 – Travel Behavior and Choices
- AFP30 – Soil and Rock Properties
- AFS20 – Geotechnical Instrumentation and Modeling Committee
- AJE15 – Workforce Development and Organizational Excellence
- AJE35 – Research Innovation Implementation Management
- AJE40 – Public Engagement and Communications
- AJE45 – Information and Knowledge Management
- AKB30 – Concrete Bridges
- AKG70 – Foundations of Bridges & Other Structures
- AKL13 – Roadside Safety Evaluation and Countermeasures
- AKM10 – Production and Use of Asphalt
- AKM20 – Binders for Flexible Pavement
- AKM30 – Asphalt Materials Selection and Mix Design
- AKM40 – Asphalt Mixture Evaluation and Performance
- AKM70 – Durability of Concrete
- AKP00(2) – Sustainable and Resilient Pavement
- AKR10 – Maintenance and Operations Management
- AME40 – Transportation in Developing Countries
- B0002 – TRB Information Services Committee
- E0006(1) – Transportation Research Thesaurus

Behavioral Traffic Safety Cooperative Research Program Affiliations

- BTS-41: Roadmap for the Future Role of Law Enforcement Personnel to Enforce Traffic Safety Laws
- BTS-42: Guidelines for Authorizing, Implementing, and Operating Automated Traffic Enforcement Programs

National Cooperative Highway Research Program (NCHRP) Affiliations

- 01-62: Impact of Flooding on the Resiliency of Pavement Systems
- 01-64: Development of Longitudinal Cracking Models for Concrete Pavements
- 09-70: Guidelines for Incorporating Aging Effects on Balanced Mix Design for Quality Assurance
- 09-73: Guidelines for Storage of Asphalt Mixture and Performance Test Specimens
- 10-124: Development of a Field Test to Determine Chip Seal Aggregate Embedment
- 10-131: Implementation of Full-Scale Laboratory Tests to Determine Performance Properties of Geosynthetic Reinforced Pavements
- 20-05/56-22: Practices for Recruiting and Retaining Engineering, Project Managers, and Key Leadership Positions
- 20-24(153): Roadmap to Addressing State DOT Workforce Planning and Development Needs
- 20-44(40): Ensuring Essential Capability for the Future Transportation Agency
- 23-45: A Knowledge Management Manual for Transportation Agencies
- 23-49: Anticipatory Knowledge Delivery for State DOTs
- D0733: Evaluate the Benefits of Increasing Clear Zone at Higher Speed/Traffic Volume/Crash Locations
- D17111: Speed Management Solutions and Strategies to Improve Pedestrian and Bicyclist Safety on Arterial Roadways
- D17133: Applicability of the 85th Percentile for Setting Speed Limits on Freeways, Expressways, and Rural Highways

American Society of Civil Engineers Affiliations

- ASCE Louisiana
- Geo-Institute Committee on Engineering Geology and Site Characterization
- Geo-Institute Committee on Geosynthetics
- Geo-Institute Committee on Deep Foundation
- Transportation & Infrastructure Committee under the Cold Regions Engineering Division

Other Memberships

- AASHTO STEM Outreach Solutions Program Committee
- AASHTO STEM Outreach Solutions Advisory Board, Vice-chair
- American Concrete Institute (ACI 440-Fiber Reinforced Polymer Reinforcement and ACI-564-0D-3-D Printing with Cementitious Materials - Modeling and Performance Prediction)
- American Planning Association (APA)
- American Public Works Association (APWA)
- American Society for Testing and Materials
- Association for Talent Development (ATD), *President*
- Association of Asphalt Paving Technologists
- Association of Modified Asphalt Producers
- Association of Transportation Safety Information Professionals (ATSIP)
- Avixa Certified Technology Specialist (CTS)
- Gulf Region Intelligent Transportation Society, *Secretary*
- Certified Government Meeting Professional
- Chi Epsilon, Civil Engineering Department Level Honor Society
- Cooperative Education and Internship Association (CEIA)
- Deep Foundation Institute, DFI
- Gulf Region Intelligent Transportation Society (GRITS), Board Member and Secretary
- Higher Education Technology Managers Association (HETMA)
- International Association of Foundation Drilling, ADSC-IAFD
- Louisiana Municipal Association (LMA)
- Louisiana Parish Engineers and Supervisors Association (LPESA)
- Louisiana's Strategic Highway Safety Plan (SHSP) Implementation Team
- LTRC's Philippines-Louisiana International Research Collaboration Team
- National Association of Colleges and Employers (NACE)
- National Association of County Engineers (NACE)
- National LTAP Association (NLTAPA) Work Groups
- National and Louisiana Chapter of Society of Government Meeting Professionals (SGMP)
- National Society of Government Meeting Professionals
- National Transportation Knowledge Network (NTKN)
- Phi Kappa Phi, University Level Honor Society
- Police Jury Association of Louisiana (PJAL)
- RILEM 302- CNC : Carbon-based nanomaterials for multifunctional cementitious matrices - International Union of Laboratories and Experts in Construction Materials, Systems and Structures
- Safety Circuit Rider Group
- Special Libraries Association, Transportation Community-SLA
- Society for Human Resource Management (SHRM)
- Southeastern Asphalt User Producer Group
- State Transportation Innovation Council (STIC)
- Tau Beta Pi, College of Engineering Level Honor Society
- Toastmasters International
- Traffic Records Coordinating Council (TRCC)
- Traffic Safety Culture Transportation Pooled Fund
- Transportation Curriculum Council (TCC)
- US Universities Council on Geotechnical Engineering Research (USUCGER).
- Women in Transportation Seminar (WTS)

Louisiana Transportation Conference Draws 1,500 Industry Professionals

Featured in Tech Today

More than 1,500 transportation leaders, researchers, and practitioners from Louisiana and 29 other states gathered at Baton Rouge's Raising Cane's River Center on March 16-19 for the 2025 Louisiana Transportation Conference. With the theme "Pathways to Progress: Shaping the Future of Transportation," the three-day event featured a General Session, an Engineering Ethics course, 78 breakout sessions on a wide range of topics, and a tradeshow with 71 exhibitors. Highlights of the General Session included the presentation of colors by Walker High School Marine Corp JROTC, a performance of the national anthem by DOTD District 61 administrator Joshua Stutes, the State of the Department address by former DOTD Secretary "Joe" Donahue, and the 2025 Transportation Awards, which recognized excellence and innovation across multiple categories. Twelve students from four Louisiana universities were also honored with the SASHTO Scholarship Award.

Among the technical sessions, the District Administrators Panel Discussion drew the largest crowd, engaging over 200 participants in an interactive conversation with four DOTD district leaders. Other top-attended sessions included updates on major construction projects such as the I-10 Calcasieu River Bridge Replacement P3 in Lake Charles and the I-20 Mississippi River Bridge status at Vicksburg, as well as MUTCD and traffic engineering updates. A new addition this year, the Secretary's Roundtable, allowed attendees to submit questions to DOTD leadership, drawing over 700 participants and receiving positive feedback. **Mark your calendars for the next Louisiana Transportation Conference, set for March 7-10, 2027, in Baton Rouge.**

Staff

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Pavement Research

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Chris Mertz, Engineering Technician DCL
Hend Alyousef, Engineering Technician 4

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Masoud Nobahar, Research Associate 4

Materials Research

Samuel B. Cooper, III, Ph.D., P.E., Materials Research Administrator

Asphalt Research

Moses Akentuna, Ph.D., P.E., Asphalt Research Manager
Saman Salari, P.E., Asphalt Research Engineer
Angela LeMay, Engineering Technician DCL
Ronald Brown, II, Engineering Technician 5

Concrete Research

Zhen Liu, Concrete Research Manager
Ricardo Hungria, Ph.D., Engineer Intern 2
Norris Rosser, Engineering Technician DCL
Austin Gueho, Engineering Technician 5
Aaron Brown, Engineering Technician 4

Sustainable and Resilient Pavement Materials and Technologies Center

Louay Mohammad, Ph.D., P.E. (WY), F. ASCE Professor, SRPC Director
Ahmed Hemida, Ph.D., Research Associate 5
Ibrahim A. Elnaml, Ph.D., Research Associate 5

Special Studies Research

Julius A. Codjoe, Ph.D., P.E., Special Studies Research Administrator

ITS & Traffic Research

Milhan Moomen, Ph.D., ITS/Traffic Research Manager
M. Ashifur Rahman, Ph.D., Research Associate 5

Safety Research

Elisabeta Mitran, Ph.D., Assistant Professor, Safety Research Manager
Kordell Carpenter, Research Technician

Structures Research

Walid Alaywan, Ph.D., P.E., Senior Structures Research Engineer

Technology Transfer and Training

Mary Leah Coco, Ph.D., Associate Director
Tracey Morgan, Executive Services Assistant
Garrett Wheat, Ph.D., Statewide Strategic Program Manager

Information Technology

Paul Hendricks, Computer Manager
David Jumper, Technology Transfer Support Services

Technology Transfer

Corey Mayeux, P.E., Technology Transfer Engineer

Publications & Digital Media Development

Emily Wolfe, Public Information Director
Jenny Gilbert, Multimedia Specialist
Chris Melton, Photographer/Videographer
Todd Blount, Technical Writer and Editor

Internal Training Program

Kirk Wales, DOTD Structured Training Program Director
Melissa Neyland, Professional Development Programs Manager
Patrick Frazier, Construction and Materials Training Program Manager
Hannah Boggs, Loss Prevention Program Manager
Will Ritter, Portland Cement Concrete (PCC) Program Technician
Claire Dixon, Headquarters Training Program Manager
Keith Antee, Maintenance and Operations Program Manager
Susan Nichols, Training Records (DTRN) Program Manager
Dimetrie Chopin, Learning Management System (LMS) Program Manager

External Training Program

Rebecca Rizzutto, DOTD External Training Director
Allison Landry, NHI/Individual Registration/Special Event Program Manager
Melissa Lee, Microsoft/CADD/Special Training Program Manager
Stacey Wilton, Education Outreach Program Manager
Marcus Sylvas, Leadership Development Program Manager
Sandy Brady, Librarian
Brenda Wolfe, TTEC Administrative Coordinator
Patrick Mehaffey, Audio Visual Manager
Layne Brown, Special Topics and Professional Skills Training Manager

Congratulations To

Sam Cooper, Jr., Ph.D., P.E.

LTRC Director

After more than four decades of dedicated service to Louisiana's transportation community, LTRC Director Dr. Cooper retired this past summer. On May 28, current and former colleagues from LTRC and DOTD Headquarters came together to celebrate his long-standing career, reflect on memories made, and wish him well in his retirement.

Local Technical Assistance Program

Rudynah Capone, Director
Courtney Dupre, LTAP Program Manager
Victor Lockwood, LTAP and LRSP Business Manager
Leonard Marretta, LRSP and LPA Program Manager
Haley Ortiz, Communications and Technology Transfer Manager
Genevieve Amick, LTAP Teaching Associate
Peter Allain, P.E., PTOE, LTAP and LRSP Crash Data Engineer

Policy Committee

Chad Winchester, P.E. (Chair)
Chief Engineer
DOTD

Glenn Ledet
Secretary, DOTD

Samuel B. Cooper, Jr., Ph.D., P.E.
Director, *Retired*
LTRC (ex-officio)

Tyson Rupnow, Ph.D., P.E.
Associate Director, Research
LTRC (ex-officio)

Mary Leah Coco, Ph.D.
Associate Director,
Technology Transfer & Training
LTRC (ex-officio)

M. Todd Donmyer, P.E.
Assistant Secretary of Operations
DOTD

Norma Jean Mattei, Ph.D., P.E.
Department of Civil Engineering
University of New Orleans

Nazimuddin "Wasi" Wasiuddin, Ph.D.
Associate Professor of Civil Engineering
Louisiana Tech University

Alex Hak-Chul Shin, Ph.D., P.E.
Chair, Department of Civil & Environmental Engineering
Southern University A & M College

Firouz Rosti, Ph.D., P.E.
Assistant Professor, Dept. of Chemical, Civil & Mechanical Engineering
McNeese State University

Mohammad Jamal Khattak, Ph.D., P.E.
Professor of Civil Engineering
University of Louisiana at Lafayette

George Z. Voyiadjis, Ph.D.
Chair, Dept. of Civil and Environmental Engineering
Louisiana State University

Katherine Raymond, Ph.D.
Professor of Practice
School of Science and Engineering
Tulane University

Laura Phillips, Observer
Federal Highway Administration