

# The FHWA's LTAP/TTAP Presents Driving Innovation Forward

2023 Performance Assessment Report

Email: CLAS@dot.gov Website: www.fhwa.dot.gov/clas/

#### INTRODUCTION

The Federal Highway Administration's (FHWA) Office of Innovation and Workforce Solutions provides transportation professionals with access to a broad network of subject matter experts, resources, innovative technologies and practices to encourage collaboration and the use of innovation in transportation programs. Additionally, the office serves as a conduit for providing training while creating workforce development opportunities for practitioners of the future.

The Local Aid Support team under this office focuses on training and technical assistance that supports local government and Tribal agencies throughout the United States through the implementation of the Local Technical Assistance Program/Tribal Technical Assistance Program (LTAP/TTAP), which is the *Highway and Training Program* under (USC Title 23-504 (b)). The Local Aid Support team is 'Driving Innovation Forward' through collaborations with the LTAP/TTAP centers to provide training, technical assistance and promote the use of innovative solutions in transportation programs. This helps FHWA achieve its number one goal of increasing safety on America's roadways while developing a workforce of the future.

#### WHAT IS LTAP?

There is an LTAP Center in every State, including Puerto Rico and the Virgin Islands to provide the local county, city agencies and Tribes with direct access to transportation resources that will improve safety for every community. The resources include training, technical assistance, and support to encourage the use of innovative solutions in the transportation programs.

The LTAP centers are housed either within a State Department of Transportation (DOT) or a University. They are integral to developing the transportation workforce by creating access to training and technical assistance necessary for staying up to date on changes to technologies, laws or priorities for improving safety, saving money, time, and operating more efficiently. For over 40 years, the success of the LTAP centers is evidenced in the more than 38,000 local and rural agencies they've assisted by focusing on these four primary areas:

- Safety improve awareness and increase implementation of best practices in roadway and worker safety.
- *Infrastructure Management* hasten the implementation of best practices in planning, design, construction, maintenance, management, and operations of the surface transportation system.
- *Workforce Development* help stakeholders attract, retain, and retrain a knowledgeable and skilled transportation workforce.
- *Organizational Excellence* endeavor to deliver efficient services to stakeholders through the effective management of organizational resources, striving for continuous improvement.

#### WHAT IS TTAP?

There are seven TTAP Centers strategically located throughout the country to provide training and technical assistance to Tribal agencies. These Centers serve as a one-stop transportation resource providing access to subject matter experts, funds, and technologies that can assist with improving their transportation programs. The TTAP Centers exist to enhance the quality of life in rural areas by building the capacity for Tribes to administer and manage their transportation programs. The 'Figure 1' below provides a map of the location of the regional TTAP centers.



#### Regional TTAP Centers Map



FHWA

<b>Regional TTAP Centers</b>	<b>Associated BIA Regions</b>	TTAP Center Awards
Eastern	Eastern and Midwest	University of Wisconsin-Madison (UW-M)
Southern	Eastern Oklahoma and Southern Plains	Oklahoma State University (OSU)
Southwestern	Navaho and Southwest	Lenea Corporation (LC)
Northern	Rocky Mountain and Great Plains	North Dakota State University (NDSU)
Western	Pacific and Western	TBD
Northwestern	Northwest	University of Washington (UW)
Alaska	Alaska	University of Alaska Fairbanks (UAF)

#### WHAT IS THE PERFORMANCE ASSESSMENT REPORT?

The purpose of the Performance Assessment Report (PAR) from the LTAP/TTAP centers is to track progress, evaluate and assess outcomes, and celebrate accomplishments. The report provides an overview of the LTAP/TTAP centers' commitment to developing the transportation community through training, encouraging the use of innovation, and improving safety on the roadways for all communities. The performance assessment report is conducted according to federal fiscal years. The data for this report is based on the timeframe of the federal fiscal year October 1, 2021, through September 30, 2022, and focuses on the LTAP Centers because the TTAP centers had not been reestablished during the reporting period.

More than 3 million in annual funds are provided to the LTAP centers from the FHWA with States providing at least half the funds. This ensures the FHWA mission-critical services can meet the vital needs of local agencies and support traditionally underserved portions of the national roadway system. The amazing accomplishments of each LTAP center reflect how the local agencies challenged with limited access to training and technical assistance resources have improved.

In FY 2022, FHWA increased the annual allocation for each Center from \$150,000 to "up to" \$210,000. A funding distribution via *Allocation Memo* is issued by the FHWA Local Aid Support team upon final approval from the Office of Secretary of Transportation (OST). State Planning and Research (SPR) and funds per Section 504(e) provisions can be used by the states to satisfy the 50% match requirement. The LTAP services are either

administered directly by the State DOTs or through contracts between states and universities or other entities. There is no contractual agreement between FHWA and the Centers. Each Center is required to submit performance data from the prior year and an annual workplan for the following year before funding allocation memos are issued by FHWA.

#### TRAINING SUCCESS

The LTAP centers hosted a total of 6,300 training sessions for local government and Tribal agencies in all 51 states, resulting in more than 155,594 thousand total participant attendance, and a total of 35,768 training hours to support roadway safety and improvement for transportation at the local level.

LTAP Centers with a budget less than \$500,000 per year averaged 99 training sessions, 2,280 participants, and 195 training hours. LTAP Centers with a budget of \$500,000 or more averaged 157 training sessions, 4,067 participants, and



303 training hours. The data shows that differences in the budget did not hamper productivity. The LTAP Centers with smaller budgets are providing training and technical assistance at almost the same rate as Centers with larger budgets. This speaks to the LTAP Centers drive to make a difference for transportation communities all over the country.

#### TYPES OF TRAINING OVERTIME

Historically, majority of training offered at LTAP centers were in-person and in 2017, 85% of all training were face-to-face, with only 6% occurring online with an instructor. Face-to-face trainings increased to 89% in 2018, with online instructor-led training decreasing to 5%. An increase to 92% for face-to-face training and 7% for online instructor-led training in 2019. This is a drastic difference in 2020



through 2021, with 65% instructor-led online training and 35% face-to-face training. This is a direct result of the efforts from the LTAP centers to quickly pivot to increase the online instructor-led training in response to COVID-19.

In 2022, most LTAP centers returned to face-to-face training offerings at 51%, while also increasing their online training offerings at 49%. This attributes to the flexibility of the LTAP centers to meet the training needs at the local level post-COVID-19, recognizing the need for diversity in the various learning styles and introducing new online training.

#### LTAP CENTERS HAD TREMENDOUS GROWTH IN THEIR PROGRAMS POST-COVID

Trends in the number of training sessions, training hours, and the number of participants in LTAP programs have surpassed pre-covid numbers. The data is based on 100% reporting from the LTAP Centers in the annual Performance Assessment Report for fiscal year 2022 (Oct. 1, 2021 – Sept. 30, 2022).

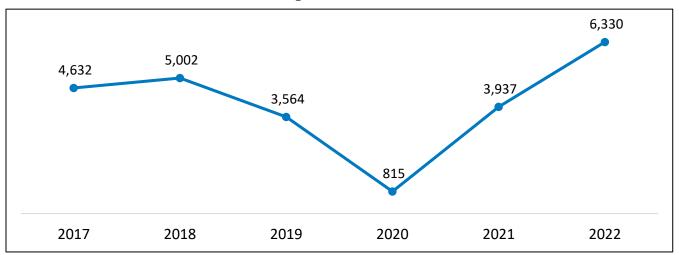
The numbers are also based on the restructuring of the data measures collected based on feedback from the LTAP Centers.

Figure 2 shows the total number of training sessions over time. In 2017, the LTAP Centers offered an average 4,632 training sessions with most of those sessions being offered in person. This number increased slightly for 2018 and then declined. Post covid, the LTAP Centers are offering significantly more training sessions compared to 2017. These sessions are a combination of face to face and online training.



#### Training Sessions Over Time



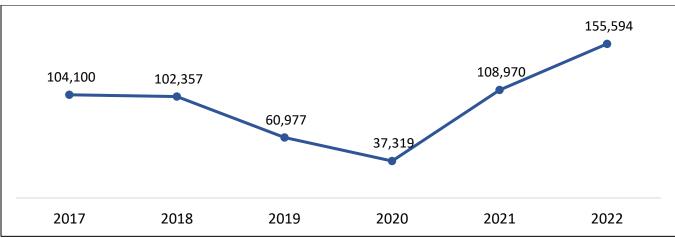


The total number of participants in all training, in-person or online, increased from 108,000 in 2021 to 155,594 in 2022. Both 2021 and 2022 surpass pre-covid attendance numbers for LTAP training sessions.

Figure 3

#### Total Participants Over Time





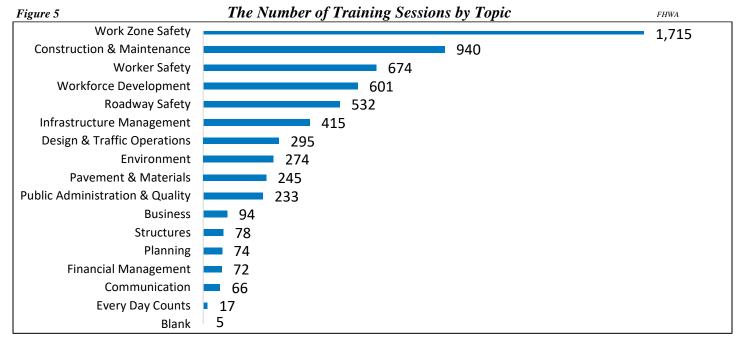
The total number of training hours taken by participants in LTAP programs has increased significantly in FY22 from previous years at 35,768 hours.



The LTAPs continued to shift their way of conducting business in 2022. Covid in 2020 forced them to increase their catalog of online training. Since 2020, the LTAP Centers faced challenges returning to face-to-face instruction and determining how much of their programs should remain online. They also had to address resistance to virtual training, updating their technological capabilities and access, and concerns about budget and resource constraints. For FY22, the LTAP Centers increased their face-to-face training, while continuing to offer online training.

#### LTAP TRAINING SESSIONS BY TOPIC

Safety is essential across the nation for all roads, so it is not a surprise that in FY 2022, Work Zone Safety held 1,715 training sessions. Ensuring the roadways could handle the number of cars, buses and trucks traveling across them each day, Construction and Maintenance held 940 training sessions. The safety of transportation workers is just as important, which explains why more than 674 training sessions were offered for Worker Safety and 532 training sessions were held for Roadway Safety. In support of transportation workers receiving the latest training to improve their skills and knowledge, there were 601 training sessions for Workforce Development, 415 sessions for Infrastructure Management and 295 sessions for Design and Traffic Operations. The LTAP centers had great success in the other 10 program area types as reflected in the 'Figure 5' diagram below.



#### BIPARTISAN INFRASTRUCTURE LAW (BIL) IMPLEMENTATION SUPPORT ACTIVITIES

The National LTAP/TTAP Association conducted a survey in FY22 to gauge how the LTAP Centers are providing support to the local government agencies. The survey results include recommendations to FHWA for specific support, technical assistance, or training needed by the LTAP Centers or local agencies in support of BIL outreach initiatives. Below is a snapshot of the feedback received from the LTAP Centers:

- Almost all Centers have communicated Notice of Funding Opportunity's (NOFOs) with locals via Center email list serve, websites, face-to-face and social media and will continue to perform this task.
- In response to these NOFOs, a few Centers are working directly with local agencies to assist them in the grants application process (SS4A). This support or technical assistance consists of providing resources to local agencies on grant application requirements (match requirements, bundling projects), providing safety data or data analysis needed for the SS4A applications, and/or forwarding questions to State and FHWA staff.

The LTAP Centers are using the United States Department of Transportation (USDOT) and FHWA websites and informational emails sent by USDOT/FHWA as their main sources of information for BIL.

#### Future BIL Implementation Support Activities

- Providing training on grant writing and data analysis assistance for understaffed local agencies.
- Identifying improvements for localities through streamlined data sources and action plan development.
- Promoting and supporting the expansion of local agency data collection for roadway project prioritization.
- Facilitate information exchange through presentations, training, and dedicated web pages for BIL resources and programs.

#### Recommendations

- Develop resources targeting local needs for BIL implementation (fact sheets, checklists, training, or SMEs that can be tapped to support Centers).
- Identify and share best practices or lessons learned from the first round of local grantees.

• Provide information on the strengths and weaknesses of the applications received and provides FAQs or best practice flyers to improve future applications (better define the evaluation criteria).

#### LTAP CENTER ACCOMPLISHMENTS

The LTAP center's accomplishments are based on data from the Center Assessment Report (CAR) which is an annual reporting mechanism that compliments the PAR.

#### **ALABAMA**

The Alabama Technology Transfer Center (ATAP) had a successful FY 2022 as the ATAP was incorporated into the newly developed Auburn University Transportation Research Institute (AUTRI) and hosted the 65th Annual Alabama Transportation Conference in Montgomery, Alabama. There were 899 registered attendees with 758 attending in-person and 141 attending virtually. Twenty-nine exhibitors participated in the conference and twenty-five people participated in the ATAP regular workshops and webinars.



Shutterstock Photo

#### ALASKA

The **Alaska Research, Development & Technology Transfer** center helped to improve the roads and bridges through training information in technology updates, personalized technical assistance, and professional development opportunities for local governments, consultants, and construction companies conducting work on behalf of the State of Alaska Department of Transportation. The LTAP center offered varied training sessions on *Traffic Control* for technicians and supervisors to *Roadside Safety Design and Project Management*.

Through a partnership with the Alaska Municipal League, the LTAP center drove innovation forward through classes delivered by the National Highway Institute (NHI) which assisted the local government agencies to better understand how to work with their Municipal Planning Organizations and Rural Planning Organizations (MPOs & RPOs). This directly supports the Alaskan consultants and contractors who have active State projects. The continuing education program for the State of Alaska maintains a level of competency and standards for professional architects, engineers, land surveyors, and landscape architects to ensure public safety within the state.

#### ARIZONA

In FY 2022, the LTAP center assisted the local public agencies to better identify and utilize available transportation resources; and manage the ever-growing transportation demands through access to technical and management materials, and on-demand technical assistance and training.

The *Heavy Equipment Training and Certification* training is currently offered to Local Governments of Arizona on a request basis and was created in response to the data captured from the 'LTAP Needs Assessment'; which indicated that 68 percent of local agencies throughout Arizona had a significant need for this training. The *Road Scholar Program* provides the local municipal employees training on the latest technologies and innovations, through a series of sessions at convenient locations throughout Arizona. The program is an invaluable resource providing quality training at an affordable price, and the three levels of training are:

- *Level 1 Road Scholar* is for entry-level transportation employees with no or limited experience offering 9 training courses totaling 76 hours of training.
- *Level II Road Scholar* is for employees working within the transportation industry, motivated to advance their knowledge, skills, and abilities to excel in their career. Level II training is in the beginning supervisory level and management course work with 9 training courses totaling 64 hours of training.
- *Level III Road Scholar* is for employees working in supervisory level and management positions and consists of 5 training courses totaling 30 hours of training.

#### ARKANSAS

In FY 2022, the **Arkansas Technology Transfer Center** offered both in-person and virtual trainings ranging from *Safety Worker & Workplace, Infrastructure Maintenance, Workforce Development* and *Computer applications*.

Five of the Build a Better Mousetrap (BABM) innovations were honored in 2022, each representing an achievement in out-of-the-box thinking to



Shutterstock Photo

solve a local agency or community need. This is the first year the LTAP center agency clients were exposed to BABM and the implicit concept of sharing internal solutions with sister agencies across the state and fellow agencies across the nation. The five agency contributors also shared their innovations as part of the Caltrans 2022 Innovation Expo.

#### **CALIFORNIA**

The International Trade and Transportation Center at California State University offered support services across four partner agencies that includes the state Department of Transportation (Caltrans) to aid their clients with engaging in relatively complex training and address their individual needs. Bringing better clarity on "how to engage with LTAP" is the most critical updated process which improves awareness and engagement levels with the state's local, rural, and tribal agencies and communities.

#### **COLORADO**



hutterstock Photo

The LTAP center is inside **Front Range Community College**. In the Fall of 2021, registrations grew by 68% and 55% in the Spring of 2022. This is due to the streamlined scheduling and course selection process. The *Supervisory Skills and Development Program* was offered with 3 different courses both in-person and virtually. The center implemented a new offering of national conference sponsorships and scholarships program, which resulted in two individuals being selected to attend the Transportation Research Board annual conference in January 2023.

The LTAP center manages two training programs offered in various locations throughout the state for the *Roads Scholar II* and the *Roads Scholar II* program. The LTAP center training topics range from pavement maintenance and *snow removal* to *communication skills* and *tort liability;* and has reinvigorated its equipment loan program, which saw the Pavement Striping Reflectometer (a pre-COVID investment) go out for the first time. The center participated in NLTAPA (regional and annual conferences), as well as the FHWA Peer Exchange, in the Fall of 2022.

The LTAP center currently serves on the State Transportation Innovation Council (STIC) and has been added to the Statewide Transportation Committee (STAC); (joining a membership of 15 urban and rural Transportation Planning Regions and two Tribes). The center was selected to chair one of the focused efforts for Colorado's Department of Transportation's Advancing Transportation Safety Program (ATSP) which is tasked with leading the charge towards a unified approach to statewide transportation safety efforts. The center is currently engaged with the Southern Colorado Institute of Transportation Technology as it builds its intermodal surface transportation foundations.

#### CONNECTICUT

The Connecticut Training and Technical Assistance Center (C2T2 LTAP) is at the Connecticut Transportation Institute and is a valuable service to the Connecticut transportation community. Through a strong partnership with the state legislature, the center has successfully expanded the reach of their Green Snow Pro education program to include private commercial applicators, municipal park & recreation, and board of education staff. This strategy solves a severe problem with salt use in Connecticut.



Shutterstock Photo

The center's partnership with Connecticut's Safety Circuit Rider program led to offering speed feedback signs and speed management training to all 169 cities/towns in the state due to pedestrian fatalities. The flagger notification system generated twenty-six (26) flagger trainings due to notifying municipalities when their flagger certifications expire.

The CT LTAP and the New England Chapter of APWA partnership during COVID-19, launched a monthly New England Chapter Connects webinar virtual series to provide essential information, and brought New England transportation agencies together to share best practices and challenges. The training webinars are now offered as an integral part of the LTAP center program, which lends to the success of the center's ability to leverage programs, funds, relationships, and partnerships to reach and meet critical goals.

#### **D**ELAWARE



Shutterstock Photo

The **Delaware Center for Transportation (T2 LTAP)**, at the University of Delaware, added direct *ATSSA flagger* training to accommodate the breakdown of their engineering circuit rider and has coordinated flagger training through collaboration with the Delaware Department of Transportation, and hosted the fifth annual snowplow Rodeo. This joint opportunity supported the center's engagement with more than 30 local agencies and allowed attendees to receive winter maintenance safety skills. The state-of-the-art snowplow simulators are available in Middletown, Delaware, with an experienced instructor and a flexible curriculum at Delaware

Technical Community College.

#### **FLORIDA**

The **Florida** LTAP center held the first in-person training session at **Florida Department of Transportation** (FDOT) District 7 Headquarters. The "*Hands-on Signal Coordination Timing Training*" provided 47 people with true hands-on experience and learners gained sufficient knowledge and skills for developing signal coordination timing plans.

In addition, the LTAP center facilitated the in-person delivery of FDOT District One (D1) *Traffic Safety Academy* training at the D1-HQ Conference Center from August through November of 2022, which provided 12 in-person sessions to 433 attendees. The assessment survey collected audience feedback, which will assist the *State Safety Office* in converting the training into a statewide model. Most trainings were online (virtual) in FY2022, and the center continues to work on two additional grants for the virtual delivery of transportation safety and Safe Routes to School (SRTS) training awarded the prior year.



Shutterstock Photo

The LTAP center maintains successful partnerships with organizations throughout the state and co-hosted several webinars with the FDOT Local Agency Program (LAP) to educate local agencies, including *Build America Buy America* – Implementation Guidance for Projects with Federal Funding; *ADA in Design, Construction*, and *Maintenance*; FHWA Emergency Relief Program Training; and the Local agency Programs Virtual Workshop. A

partnership with the Florida Pavement Preservation Council (FPPC) offered webinars on various topics related to pavement preservation and the partnership with the American Public Works Association (APWA) provided a series of public works-related webinars to local agencies. The LTAP center also hosts meetings of the LAP Community of Practice, Florida Greenbook Committee, and Florida Association of County Engineers & Road Superintendents (FACERS) and assisted with meeting logistics, participated in discussions, and/or provided center training and activity updates.

#### GEORGIA

In conjunction with the FHWA safety office, the center hosted two LRSP inperson sessions and the **Georgia Department of Transportation** brought in the contractor of Numetric, the crash data software, and provided one-on-one training on how to use the system and generate various reports.

The center has partnered with a local consultant to develop the *Bridge Asset Management/Maintenance* course, which supports the local government's



Shutterstock Photo

staff with the knowledge needed to maintain the bridges in their local systems. This will support 3,592 bridges that are older than 50 years. The LTAP center is driving innovation forward by expanding course topics to include advance level topics and incorporating National Highway Institute (NHI) courses that are designed to enhance the knowledge of Professional Engineers and Senior Planners.

#### HAWAII

Located at the **University of Hawaii** the LTAP center fosters a safe, efficient, and environmentally sound surface transportation system through improving skills and increasing knowledge of the transportation workforce and decision makers. As the primary resource for enriching knowledge, skills, and competencies of the local and state work force to improve efficiency, effectiveness, safety, and environmental quality of the Hawaii transportation system, the center cultivates a positive learning environment by developing and delivering a broad range of quality training, technology transfer, and information sharing through cooperative relationships that promote best practices.

#### **IDAHO**



Shutterstock Photo

**The Local Highway Technical Assistance Council (Idaho LTAP)** had 67 learners who achieved the *Road Scholar* and 59 who achieved the *Road Master*. The LTAP center held a two-day *Bridge Preservation* Workshop for 66 participants where information was shared for different low-cost maintenance strategies to preserve bridge structures and extend the lifespan of bridges. The in-person training allowed for handson experience to practice various maintenance techniques.

#### **ILLINOIS**

In FY 2022, the **Illinois Technology Transfer Center** held online, ondemand and hybrid class offerings and the *Flagger Training* is the most popular, which is utilized by local agencies for new people or people that missed in-person training. All online classes are recorded and offered ondemand. The center also launched the hybrid *Executive Leadership Development* (ELDS) program for County Engineers, and it has integrations of the online flagger certification training course. The in-person flagger certificate training had record numbers, with a total of 2,099 learners and the hybrid training included 1,015 online and 1,084 face-to-face.



Shutterstock Photo

#### Indiana



The LTAP center is at **Purdue University** and in FY 2022 had a monumental year, expanding their physical and online spaces. Their main offices were relocated to a larger space to hold their expanding training opportunities and the classrooms house a driving simulator for use in snowplow and CDL training. As CDL requirements have changed, this simulator will help locals in the training of their employees.

In addition, the LTAP center opened a satellite office in Angola, Indiana, as headquarters for their new research and innovation programs to enhance and improve public agency management and delivery of local transportation systems by providing value, quality control and assurances, and collaboration platforms for agencies and researchers. Deliverables from the research program include training opportunities, best practice documents, draft manuals and ordinances, tools, and processes, and much more. In Fall 2022, the LTAP center hosted a two-day Local Road Plan Safety Peer Exchange at the new office. Experts from FHWA, the Indiana Department of Transportation and the LTAP center led discussions and working groups on developing their own Local Road Scholar Program (LRSP). The center provided crash data maps for locals who attended to aid in the development of such plans. The innovation program was created to identify, yet, implement, and recognize ideas, processes and tools specifically generated by local agencies that improve construction, maintenance, contracting, inspection, and all other related highway and street department activities. This includes the new Masterminds Challenge to celebrate successful ideas created by our transportation agencies.

The LTAP center held their Road Scholar classes online and developed in-person workshops and webinars on a variety of topics. The Learning Management System keeps track of and archives user's' education credits. In response to legislative requirements, the LTAP center created a Local Road and Bridge Database to aid public and elected officials in telling their asset management stories to their constituents and the public. The online portal fulfills state statute (IC 8-23-30-9), which requires the Indiana Department of Transportation or an entity (LTAP) to provide electronic copies of Asset Management plans on a public website. The site collects and makes publicly available data on the condition of bridges and pavement. The website's dashboard visualizes several performance measures and metrics of local roads, bridges, and highway/street receipts and expenditures, as well as demonstrates the trend or trajectory of local payement and bridge conditions over time and in terms of the overall network. They have also partnered with several federal agencies to provide webinars for local agencies on specific programs, such as Safe Streets and Roads for All.

The center also introduced a new Directory of State, County, City and Town Officials Responsible for Road and Street Work at their annual Purdue Road School in March 2022. This directory includes an interactive app version that streamlines the production of the print directory by simply exporting pages from the app and sending them directly to the printer.

#### **IOWA**

Iowa State University (LTAP) is continuing to help Iowa's local governments meet the demands of their local roads, streets, bridges, and public transportation. FY 2022, the LTAP center had record year attendance, and usage of, its technical training resources with the majority of the training and events held at locations throughout Iowa.



The BABM program saw four applications submitted, which included innovations for a shop clean-up squeegee, cold-mix placer, salt/sand spreader lifting jig, and a barricade trailer. The winner was the shop clean-up squeegee from Madison County and the LTAP center website shares information about prior and present innovations.

During 2022, the LTAP center increased stability for its processes which included offering the work zone/flagger training and the *motorgrader operator* (MoGO) training on-site. The center has partnered with a vendor to provide behind the wheel time on a closed roadway at one location providing both time and cost efficiency.

#### KANSAS

In FY 2022 the Kansas University Transportation Center (KUTC) released a smartphone application, rebranded the Kansas LTAP center, developed a strategic plan and launched the Mobile app which improved



access to the equipment loan program and resource library, and includes unique and local aid-focused tools like work zone and material calculators, to help locals design work zone traffic control and estimate material quantity and cost. In March 2022, as part of a re-branding effort for KUTC, the LTAP center's communication team released a style guide for the new brand, which includes an updated LTAP center logo.

In August 2022, a micro strategy session which included a strength, opportunities, aspirations, results (SOAR) analysis, provided a high-level summary of the center's need to identify, discuss & prioritize strategic goals that aligned with the strengths, opportunities, aspirations, and results. Six strategic goals and two innovative ideas were the outcomes that will improve program delivery.

In September 2022, the center partnered with Missouri, Iowa, and Nebraska LTAPs to host the MINK Local Roads meeting. The LTAP center presented at local meetings and visited 62 counties in 82 cities across the state. All but 2 of those counties signed up for plan development and connecting locals with the Equipment Loan Program (ELP), which 15 loans were completed in 2022. The new website launched in the Summer of 2022 and growth occurred in the social media presence on Facebook with 1,800 page reaches, a 140% increase from last year. Page visits have also increased by 43% and saw 25 new followers.

#### KENTUCKY

The Kentucky Transportation Center balances the needs and requests of their local governments and conducted about 60 percent of courses online and the remaining in-person in FY 2022.

There were 188 individuals that completed the *Roads Scholars*, 157 people that completed the *Road Masters* and 92 participants



who completed both programs. The 2022 Roads Scholars and Road Master Training Programs graduated The Kentucky's State Highway Engineer and Deputy State Highway Engineer presented plaques to the individuals who completed the program.

The LTAP center also launched the *Road Safety Champion* Program, modifying the program created by the National Center for Rural Road Safety to include Kentucky-specific information and examples, and offered ten courses in Zoom format with additional courses on the learning management system, Canvas. More than 50 learners are enrolled in the program and completing their final project. The City of Florence is using the program as a springboard to maintain and keep safer streets and signage." The center continues providing 'Webinar Wednesday', a free monthly offering series on Zoom discussing topics in Leadership and Transportation. The program is expanding to include all new topics and appeal to a wider audience.

In August 2022 the center hosted a FHWA In-State Peer Exchange for Developing Local Road Safety Plans with 22 local government agencies in attendance. The Peer Exchange provided a framework for organizing stakeholders to identify, analyze, and prioritize roadway safety improvements on local roads. KYTC's Highway Safety Improvement Program discussed funding opportunities once a plan is complete.

The **Kentucky** LTAP center held the very first *Instructor Development Day*, which offered the opportunity for their instructors to gather to network, have professional headshots taken, record short course descriptions to promote training classes, and participate in professional development training. The LTAP center also assisted local governments through *Area Development Districts* (ADDs) to send in proposals for SS4A. Eleven of the fifteen ADDs submitted proposals as well as counties and cities outside of these ADDs. Between numerous training events each week, local government outreach, and regular publications like the quarterly Link, the **Kentucky** LTAP center achieved great success in 2022.

#### LOUISIANA



The **Louisiana Technology Transfer Center** hosted two conferences and three virtual showcases for the Louisiana Parish Engineers and Supervisors Association (LPESA) in FY 2022. The center taught over ten *Work Zone Safety* mini workshops, two *Core Qualification Training* workshops of the Local Public Agency (LPA), and thirty-six *Roads Scholar* courses on *temporary traffic control*, *heavy equipment safety*, *pavement preservation*, and *bridge inspection*, *maintenance*, and *repair*. The center conducted

more field visits than years prior, including ball baking on curves as part of *Combating Rural Roadway Workshops* in nine locations; inspecting local bridges, which is now offered as a full, in-person class; and assisting with pavement assessments as part of their holistic approach to promoting pavement preservation programs. The Louisiana LTAP staff are preparing for tractor/mower safety courses offered from January to March and planning for LTAP Cornucopia sessions at the biennial 2023 Louisiana Transportation Conference.

#### **MAINE**

The **Maine Local Roads Center** provided municipal and county personnel training on constructing, maintaining, and managing the local roads and bridges in FY 2022. The Maine Local Roads Center promoted their software for local road management (RSMS). The support from the Lincoln County Regional Planning Commission paid the fees for individual town software packages, with training and field assistance for each of those towns to implement a road plan facilitated by the LTAP center. Currently, a comprehensive road plan is being developed to provide a cost-effective way to utilize funds for road repairs.

#### MARYLAND

The LTAP center is at the **University of Maryland**, and in FY 2022, primarily offered virtual classes as requested by the Chief Learning Officer for the Maryland Department of Transportation and is modifying their Graduate Engineer Training Program (GETP). This is an excellent opportunity for the LTAP center to create a specific curriculum geared for engineers, through the selection of modules, costs, and trainer availability.

#### **MASSACHUSETTS**

The Massachusetts Baystate Roads Program (LTAP) is at the University of Massachusetts and in FY 2022 made several improvements adding many training options to their program. The Center purchased CommonLook, a program that is used to review training materials to meet Massachusetts DOT accessibility standards. The FAA Drone Pilot Exam Prep Class was completely redeveloped from an old-school video-taped classroom to 6 stand-alone taped Zoom-recorded segments with separate PowerPoint recordings, updated knowledge checks, and incorporating new FAA regulations and testing information.



Shutterstock Photo

The LTAP center also created new safety videos that were added to their training catalog and contracted with SafetySkills to offer 13 training videos on a variety of safety topics. The team worked with the University of Massachusetts IT's Online Educational Technology team to use the UMass Blackboard platform to share these SCORM-compliant videos. Incorporating new online Vyond video animation software, a new Transportation Terminology outreach video series was developed. These short (2min.), informative, and entertaining segments

educate the public on transportation terms and concepts being heard and seen in the news. As of November 2022, six episodes have been released. In addition, promotional Baystate Roads Vyond videos were created for virtual class waiting rooms on their Zoom platform. Waiting room videos elevate audience awareness of the many classes and resources we provide to support the cities and towns across the Commonwealth.

The LTAP center has expanded the use of QR codes for faster access to materials and resources and utilized QR codes at the New England Public Works Expo to engage attendees which directed people to their resources page, video library, training calendar, and a short survey on GIS knowledge and social media use. Completion of the survey was incentivized through an entry into a raffle. The QR codes are also utilized to administer in-person workshop evaluations which has increased in evaluation responses.

Five virtual classes and one in-person class were approved to provide technical contact hours (TCH) through various certification boards. These boards include:

- Massachusetts Board of Certification of Operators of Drinking Water Supply Facilities
- International Society of Arboriculture
- Massachusetts Arborists Association

The LTAP center website, membership and training database improvements have increased efficiencies and backend organization in 2022. Work also began on a major face-lift for their Resources page, which will provide intuitive search function improvement, and allow quicker access to resources, tools, videos, documents and more. Their new Knowledge Center Library was launched in early 2023.

#### **MICHIGAN**

The **Michigan Center for Technology and Training** made a change in the preferred mode of student learning, internal processes due to higher volume, and an increase in federal core funding in FY 2022. In response to Covid-19 restrictions, almost training sessions were delivered virtually. The multi-day, large conferences with fewer than 150 people made a very quick rebound and the increased demand for in-person events returned post-pandemic. Due to the increased session volume, the LTAP center created a Google document which is used as a status board for all training offerings. The documents provide information about events scheduled, advertisements and helped coordinate different parts of the process to assist managers with their development progress without constant inquiry and meetings.

#### MINNESOTA



In FY 2022, the **Center for Transportation Studies University** offered more training opportunities, developed new courses and certificates, and focused on initiatives like workforce development and CDL changes, and increasing partnership activities.

The LTAP center continued to provide both in-person and virtual training sessions, as this model continues to receive great registration from the local agencies and launched several courses and a new certificate: "Introduction to Civil 3D Practical Application",

which introduces Civil 3D, the civil CADD software. This is an instructor-supported online course and begins with an instructor-led live orientation. Each week of the course a two-hour pre-recorded lecture and self-paced classroom lesson and assignments will be included, as well as a live, instructor-led discussion.

The LTAP center launched two new hybrid courses, the "Work-Zone Safety Orientation" (online, self-paced) course, and the Communicating with the Public for Field Staff (online, self-paced) training course. Both courses provide an opportunity for beginning seasonal, and temporary construction, maintenance, and utility staff to learn about the fundamentals of work-zone safety, resolves many of the hazards inherent in road and street work, and documents how these dangers can be minimized to keep motorists, pedestrians, and employees safe. The second course provides public agency field staff with foundational knowledge and best practices for communicating with a range of public stakeholders in a variety of contexts.

#### MISSISSIPPI

Housed at the Mississippi Department of Transportation, the LTAP center's mission is to foster an efficient and environmentally sound transportation system in the State of Mississippi by improving the skills and knowledge of transportation providers through training, technical assistance, and technology transfer. The center has been successful in providing lowcost workshops to local government agencies and assisting them to effectively manage their local transportation programs. The center also published and distributes a quarterly newsletter and supports the "Circuit



Rider' program, by sharing information materials to local agencies, as well as lending the library of video programs and technical publications on a variety of transportation topics. Working with the local government agencies directly and with their Advisory Board, the LTAP center can determine how best to meet the needs of the local agency.

#### MISSOURI

The Missouri Local Training and Resource Center LTAP center coordinated and delivered the Missouri Concrete Conference in the spring and the 63rd Asphalt Conference in late fall. This resulted in in-person training for multiple agencies across the state while continuing to schedule on-demand classes. The center works closely with the Missouri Chapter APWA to schedule classes in the St. Louis metro area.

In FY2022, the LTAP center provided webinars through a partnership with the Missouri DOT, the Missouri Pavement Preservation Council, and various consultants, offering a three-part training series. Local Public Agency (LPA) Basics and Responsible Person in Charge with Missouri DOT, and the Local Road Safety Plans (LSRP) online workshop taught by FHWA's Resource Center. The LTAP center also hosted a virtual lunch and learn where FHWA discussed Complete Streets and the center celebrated National Work Zone Awareness Week with several virtual presentations and trainings to local agencies. The training for the New Process for LPA Right-of-way Oversight in partnership with Missouri DOT and Local Public Agency Projects: Affirmative Action & EEO Responsibilities explained the use of consultants for right-of-way services to meet the demands of the BIL. The training was offered on 3 different dates and provided detailed information, explaining MoDOT's use of consultants for right of way oversight on LPA projects and how LPAs will be impacted.

#### MONTANA

The Montana State University is where the LTAP center offers training courses ranging from the flagger, work zone safety, and personal safety training throughout the State. The center also participated in the spring and fall Modified Accelerated Cost Recovery Systems (MACRS) training.

#### **NEBRASKA**



In FY 2022 the LTAP center is working with the state DOT and the LPA association to help create resources and funding for grant writing assistance and project bundles by advertising events and including outreach efforts in all their communications with local agencies. In partnership with Lancaster County, the LTAP center offered an annual equipment safety summit, which provided handson training and a demonstration day dedicated to heavy equipment safety. The summit offered a mix of classroom and field work to improve engagement and increase learning.

Shutterstock Photo Continuing to offer both in-person and online training, the center offers their monthly Road Safety Champion webinars and continues to promote their heavy equipment training program,

which includes an extensive lineup of on-demand training for new operators, as well as refresher training, through the partnership with Vista Training, Inc. This online training, coupled with hands-on training provided by the local public agency is a cost-effective solution for most of the state's heavy equipment training needs. Looking forward, the LTAP center is planning to offer train-the-trainer type opportunities for our master operators/hands-on trainers. Attendance improved due to the LTAP center participation in nearly 10 large annual state and regional conferences and events which drove increased attendance in the training offerings.

#### **NEVADA**

In FY2022 the LTAP center began providing the quarterly email Road Scholar (RS) progress report which documents the programs progress, the number of requirements remaining, and a list of upcoming trainings that meet those requirements. There has been an increase in participant engagement with the LTAP center and RS completion as a result of this report.



Shutterstock Photo

A new learning management system was acquired at the LTAP center, which allows participants to access their student records from the website and enroll directly in training offerings. It also allows participants to monitor their RS progress. This technology implementation has resulted in an increased enrollment into the RS program and completion. The LTAP center incorporated an electronic promotion to include the enewsletters and partnered with the Nevada Grants Lab, a local non-profit, to offer grant writing service support to local agencies interested in applying for grants. In partnership with the Utah Asphalt Pavement Association and a team of Nevada stakeholders, the LTAP center hosted the first *Nevada Asphalt Conference* in Reno. The event provided training and networking opportunities across the state.

#### **NEW HAMPSHIRE**

Located at the **University of New Hampshire** the LTAP center provided training both in-person and virtually, including replaying past content from partners and peers, and providing New Hampshire Roads Scholar credit for some pre-selected course content through FHWA Center for Local Aid Support or AASHTO TC3.

#### **NEW JERSEY**

In FY 2022 the **Rutgers Center for Advanced Infrastructure and Transportation** digitized identification/credential cards for the New Jersey Department of Transportation *Traffic Control* certification training, and currently offers a blend of in-person and online sessions with enrollment increasing. The LTAP center developed and held the first joint program with Rutgers Cooperative Extension Water Resources Program on Green Infrastructure and Porous Asphalt and continued co-sponsoring education programs for NACE affiliate and APWA Chapter, including their county engineers' annual Fall Forum. The center resumed offering in-person workshops at the NJ Public Works EXPO and resumed exhibiting at the NJ State League of Municipalities Conference. The LTAP center collaborated with CT, DE, NY, KY, OH, and WA centers, who presented in their trainings and mini webinars.

#### **NEW MEXICO**



Shutterstock Photo

The LTAP center works with the **New Mexico Department of Transportation** and in FY 2022 developed online resources, building a resource library, and served their community through the successful new partnership within the state to offer more *Flagger*, *TCT*, *TCS*, *OSHA 30*, and *Stormwater Competent* training certifications to local agencies across the state. More than 70 locals in rural parts of New Mexico were certified.

Through a streamlined registration process, the LTAP center has seen an increase in training requests, with the potential to certify more than 100

people in the future. In addition, the center has provided more *Heavy Equipment* training *Certification* training,

and individual courses than in prior years. Offering several BIL grant writing courses, due to request from two Regional Transportation Planning Organizations, and have made plans to provide direct BIL support through training and technical assistance.

The 'Web App Builder Application', a reporting mechanism which allows for real-time data collection, editing and responses to reported issues with information communicated seamlessly to create maintenance work orders immediately was implemented. The innovative technology provides support to 'Right of Ways' (ROWs), which majority are fenced in New Mexico and when broken can be reported through the application thereby supporting roadway safety. The technology has a feature for quick identification of the exact location of the fence break and allows the users to close the issue once the work has been completed. The application also supports communication between various departments, replacing paper-based data collection, providing accurate data reporting, and allowing for efficient analysis of solutions in real-time. This also supports decision-making for maintenance and operations purposes. The technology is both user-friendly and facilitates data access and data delivery to all authorized users (including non-GIS audience). The data is centralized, secure, and can be utilized in planning processes, budget forecast and the ordering of necessary materials without causing delays.

#### **NEW YORK**



The LTAP center (NYSLTAP) for New York is the Cornell Local **Roads Program,** and the center saw an increase in training enrollment from the engineering audience. These training were offered via webinars for eligible engineering continuing education in NYS. In response to this increase, the NYSLTAP center developed a webinar training series titled Foundational webinars. There were thirty-three one-hour webinars created which focused on the foundational aspects of the topics needed to run and manage a local highway agency and the webinars are earn engineering professional development hours.

The NYSLTAP center was requested by the FHWA and New York State Department of Transportation to provide local agency training on the basics of federal aid. The training materials were completely revamped, with the inclusion of interactive activities for an online setting. The training session was offered twice during the 2021-22 fiscal year and will be offered twice a year moving forward.

In-person conferences resumed with more than 1,000 attendees at the Highway School and Bridge Conference. The NYSLTAP center also offered the Legal Liabilities workshop, was awarded seventh Work Zone Package grant to purchase sets of work zone equipment for distribution at no charge to highway and public works departments in New York State – with priority given to those agencies that recently lost equipment due to flood, fire, theft, or other unforeseen circumstances and developed and launched the virtual Local Federal-Aid 101 workshop. The NYSLTAP center also created the Safety Poster series which is inserted in their quarterly printed newsletter. These posters are intended to be hung in the shop to remind employees of safety standards & practices. The center also streamlined Technical Assistance requests by creating an easy-to-use digital form accessible from mobile devices where photos and descriptions can be uploaded and sent directly to the NYSLTAP center.

#### NORTH CAROLINA

The LTAP center offered a variety of training, such as work zone safety, pavement maintenance, erosion control, utility cuts, traffic calming, sign retro reflectivity, heavy equipment operator safety, OSHA, and supervisory skills, to employees of the North Carolina Department of Transportation (NCDOT). Two new classes were launched in FY2022; Bicycles and Pedestrians, which meets the 'Needs of All Users' and Inspecting Curb Ramps. While continuing to offer both online and in-person classes, their vital safety class was in-person training. The fall of 2022 was one of their busiest months due to their participation in the FHWA 'Workforce Development Peer Exchange'. The center also improved through simple utilization of technology, employing Microsoft Excel scripts, to increase registration record efficiency, as well as utilizing the Google campus services, and began

collecting link open rates on class advertisements to determine the best marketing strategies. Forty-five Road Scholar graduates were celebrated at the Annual APWA NC Streets and Equipment Services conference, with thirty-three students from Road Scholar, ten students from the Advanced Roads Scholar, and five students from the Master Roads Scholar. Currently, two innovative projects are in the implementation phase. The City of Raleigh is partnering with Advanced Auto Parts on a hybrid parts management system, and The City of Hickory is piloting radar-activated flashing lights on stop signs to help reduce speeding and running of stop signs.

#### NORTH DAKOTA

North Dakota State University, the LTAP center, continues to offer various training sessions with a strong focus on Roadway Safety. In FY 2022 the LTAP center provided enhancement on proper roadway section, gravel gradation and gravel PI. The *Gravel* quality training is offered annually by request to local agencies, as well as the hands-on Motor-Grader Operator training. Instructed by local operators, the training offers 10-12 sessions between May and October.



Safety is such an integral part of ensuring the roadways at the local level, the LTAP center offered the Reducing Rural Roadway Departures (FoRRRwD) training. This in-person training consists of instructors from LTAP, the North Dakota Department of Transportation, and the North Dakota Insurance Reserve Fund. The center also offers employee safety topics such as OSHA 10-hour training, Work Zone Safety training, PPE, Basic First Aid, CPR, Trenching and Excavating, and Traffic Control Technical Training; and other training focused on proper installation of roadway signs and culverts. Bridge inspection training is also offered to the local agencies.

With an understanding that effective leadership is the cornerstone for success at the local level, the LTAP center offers agencies new operators, team building and seasoned employees, training that focuses on city involvement through the "Boots on the Ground" program. The training program is currently offered to all cities in North Dakota. The LTAP center established the conference agenda for the Regional Local Roads Conference in 2022 which had 450 attendees and 65 vendors in Rapid City, SD.

#### Оню



The Ohio LTAP center focused on creating curated marketing for their eLearning courses offered by their program. For FY 2022, through a partnership with the County Engineers Association of Ohio (CEAO), the Department of Transportation's (DOT) staff engaged in upcycling steel beams leftover from bridge projects that have been demolished or rehabilitated. Thus far, two counties, Defiance and Muskingum, have successfully used upcycled steel beams on several projects, which is a cost benefit to the community, as valuable products are being utilized and not discarded. The upcycled bridges are safe and strong as if they had used new

steel. The upcycling of bridge beams from DOT bridges to local bridges provides an estimated savings per local bridge of \$50,000. In addition, upcycling saves valuable natural resources by not having to purchase new beams for local bridges under construction or rehabilitation. Through the highlighting of the process, the DOT decided to make the beams available to the counties at no cost, instead of the original process where the counties purchased the beams from contractors at scrap pricing. This is a win-win for the taxpayers and the environment.

This year, the Ohio LTAP Center continued to see a steady increase in the return to in-person (classroom-based) training among their local agency customers. During the spring and summer of 2022, the Ohio LTAP center conducted many sessions of their popular Work Zone Traffic Control & Safety training, both as a one-day course and as an abbreviated 'Circuit Rider' class. During the fall, the Ohio LTAP center provided many sessions of their popular Snow & Ice Control training, in both the one-day course and 'Circuit Rider' class formats. One of their

noteworthy sessions in 2022 was *Flagging Safety Awareness* training, which was conducted in April in Southwest Ohio as part of National Work Zone Safety Awareness Week.

#### **OKLAHOMA**

The **Oklahoma Local Technical Assistant Program,** LTAP center launched two "Safe Streets for All" grant writing classes in FY 2022. The overwhelming response from the local agencies was a success as it helped many to get extra funding. The center now offers the class as a two-day workshop and incorporated Federal Aid 101, so entities will know what to do when they receive funding. The LTAP center has also launched new courses, including Road Safety Audits and Fall Protection.

#### **OREGON**

The **Oregon Department of Transportation,** LTAP center accomplished utilizing two strategies to improve their program delivery in FY 2022. The first is by maintaining their virtual flagging class, which offers customers a quick turn-around and cost savings, as the training doesn't require travel. The second is by offering the *Roads Scholar* (RS) class training upon request. These strategic improvements have resulted in a significant increase in the number of training sessions offered for RS classes over a 12-month period.

#### **PENNSYLVANIA**



The **Pennsylvania** LTAP Center (**PALTAP**) continues to update and refine their website with their resources such as tech sheets, newsletters, and videos. The goal is to make these resources easily accessible to municipal partners and the public. The PALTAP center is offering both in-person and virtual training and continuing to update several courses including *Traffic Signals*, *Erosion and Sediment Control*, and *Pedestrian/Crosswalks*.

PUERTO RICO

The **Puerto Rico Transportation Technology Transfer Center (Puerto Rico LTAP) center** LTAP center used 'GoToWebinar' and 'Zoom' as the primary platforms for delivering 10% of the virtual training sessions in FY 2022. The Microsoft Teams platform was used for the day-to-day staff meetings with officials from FHWA-Puerto Rico & USVI Division and the Puerto Rico Highway and Transportation Authority (PRHTA). The poster entitled "A Decade of Innovation: Success Stories on Everyday Counts (EDC)Initiatives in Puerto Rico and USVI was presented at the **Transportation Research Board (TRB) Annual Conference**. The LTAP center is also the co-editor of the quarterly bilingual *Puerto Rico STIC Innovation Newsletter* in collaboration with the FHWA-Puerto Rico and US Virgin Islands Division.

#### RHODE ISLAND

The Rhode Island Department of Transportation LTAP center saw tremendous growth in FY 2022 as a direct result of completing an annual training needs assessment and developing a roadmap for all training, with 90% of all Rhode Island cities and towns engaging with the center and participating in 120 different courses. This is an increase of 114% with over 675 training registrations. The town of New Shoreham, the smallest town, and the only island municipality in Rhode Island, participated in training for the first time.



hutterstock Photo

The center also launched a new learning management system, which offers 'On-Demand' training courses, registration for instructor-led trainings, and instant access to technical assistance such as tailgate talks, lunch and learns, and on-the-job training materials. The redesign of the website provides updated information, resource links, and a brand-new training and technical assistance request form. This is an increase of municipal participation of 7%.

#### SOUTH CAROLINA

The South Carolina Transportation Technology Transfer Service hosted the Annual SC Highway Engineers Conference, with record participation of more than 900 attendees. The center also partnered with the American Planning Association in their 2022 fall conference, which saw more than 4,500 people in 32 agencies from various countries receive training.

#### SOUTH DAKOTA

The South Dakota State University, LTAP center partnered with the Upper Great Plains Transportation Institute in North Dakota, Montana State University, and the University of Wyoming to become the new **Northern TTAP** center. This partnership will offer the Northern Tribes many of the same services offered to their existing LTAP customers and was developed to better serve the Tribes of North Dakota, South Dakota, Wyoming, Montana, and Nebraska more efficiently. Training increased in technical assistance requests, and the LTAP center, being



the recipient of the BABM award, will receive funds over four years to offset costs associated with replacement and repair of culverts larger than 60" or small structures less than 20" in length. Those funds will also be utilized for a statewide inventory of all pipes and small structures on the township system over 60" in diameter. The LTAP primary emphasis will continue to meet the ever-growing need for free training and technical assistance.

#### **TENNESSEE**

The Tennessee Transportation Assistance Program (LTAP) center has done new research, education, and outreach opportunities (including a significant new multi-disciplinary "Future Mobility" cluster hire awarded by the University of Tennessee) in FY 2022.

#### **TEXAS**



The University of Texas Arlington Division for Enterprise Development (TxLTAP) LTAP center has created its own local Roads Scholar program, offered at no cost, after working closely with the staff, instructors, and consultants in various capacities while utilizing LTAP services. The local county roads department partnered with the LTAP center to learn and implement Workforce Development best practices, including technical and safety training. As a result, the county now coordinates and hosts regular nocost training for their local government road professionals. All associated

technical assistance and Workforce Development resources were provided as a direct result of STIC Incentive awarded funding and programming.

The LTAP center has worked with the state DOT to co-coordinate and manage the Texas STIC and the center transitioned from hosting completely virtual TxSTIC meetings to hybrid meetings. This has increased collaboration and communications with all stakeholders, especially the state DOT partners. The LTAP center developed ten new Tailgate Talks on various topics which are available at txltap.org. The topics were chosen based on current issues, availability of no-cost/legitimate training resources on the subjects, including existing Tailgate Talks and other LTAP Center resources. The center also developed a new technical training course in Metal Beam Guardrail Repair and Maintenance in response to requests for training or training recommendations on the subject.

Based on a Texas State Transportation Innovation Council (STIC) grant awarded in September 2022, the LTAP center is developing a 5-stage Model designed with facts, statistics, recruiting, and employee development aids, with the primary focus to attract and retain employees. The project is an expansion and continuation of the FHWA EDC-6 Strategic Workforce Development innovation but designed for Public Works and Road and Bridge Departments at the local city and county levels.

#### **UTAH**

The **Utah** LTAP center updated their asset management systems for local governments, which included pavement management and signs/sidewalks. The Pavement report focused on "keeping good roads good" and budget planning for a 20-year maintenance horizon. The sign/sidewalk report, developed by engineering students, included heat maps which helped the local governments to prioritize. The improved reports were praised by the local governments for concisely understanding the maintenance priorities and budget constraints that impact the local government agency.

#### VERMONT

The **Vermont Local Roads** LTAP center provided online training with their equipment training and utilized the on-line platforms to cover the theory portions prior to the in-person day. This has greatly increased the effectiveness of the equipment program and the Vermont LTAP center continues to offer blended learning as customers have really appreciated the change and have expressed their value for the online platforms being used to work through the "theory" portions of their equipment training in smaller bites.

Currently, the Vermont LTAP center has returned to in-person training but has increased their equipment training with more equipment offerings. The center also successfully utilized STIC funding to provide asset management training using tools that incorporate mobile device technology.

#### VIRGINIA



Shutterstock Photo

The University of Virginia Training Academy LTAP Center hosted six 'Roundtable' discussions on various safety topics, including bicycle and pedestrian safety, crash reductions, and systemic safety improvement funding, led by a panel of speakers from the Virginia Department of Transportation (VDOT), Subject Matter Expert's, and local government agencies. In the Spring of 2022, 37 project managers from across the state attended the annual Transportation Project Management Institute (TMPI). This eight-day intensive residential training program exclusively designed for managing the

development phase of transportation projects, enhances the knowledge and skills of project managers to complete projects on time and on-budget, and was developed specifically for project management practitioners from VDOT, local government, and private consulting firms.

Road Safety Champion Program (RSCP), a nationally recognized certificate program designed to increase safety knowledge for the workforce that is responsible for operating, maintaining, and designing local roads with the goal of reducing fatalities and serious injuries on rural and local roadways saw 64 active participants in 2022. Forty-three of the participants came from various localities, five States, and 16 DOT contractors. The LTAP center participated in the annual Roadway Management Conference (RMC) assisting with facilitating breakout sessions and working the registration desk.

Through consistent marketing communications efforts, the LTAP center informs the local agencies to remain abreast of their evolving transportation training and technical assistance and to capture data distributed a Local Agency Needs Assessment utilizing Survey Monkey. The survey produced numerous responses and served to inform the selection of Training development and offerings during the coming fiscal year.

The LTAP center offered an *Accelerated Bridge Construction* workshop and introduced the FHWA's *Design and Construction Guidelines* for Geosynthetic Reinforced Soil Abutments and Integrated Bridge Systems. The assignment during the workshop focuses on comparing Design Build (DB) to Construction Manager General Contractor (CMGC). This generates great discussion and provides opportunities for localities to share their contracting practices.

#### WASHINGTON

The **Washington State** LTAP center hosted the National LTAP & TTAP (NLTAPA) annual conference in Seattle, Washington in July 2022. The 'Washington Transportation Professionals Forum' peer exchanges program saw an increase in participation, which is a success with 150-250 participants. The LTAP center continues their partnership with the Washington State Department of Transportation, helping to secure quality speakers and create content. The LTAP center host, organizes, and moderates elements within the peer exchanges and attendance continues to grow amongst local agencies across the state, with record attendance in December 2022.

The partnership with their Metropolitan Planning Organizations/Regional Transportation Planning Organizations resulted in implementing *Local Road Safety Plans* (LRSP) with both counties and cities and has resulted in a specific benefit to several local agencies. The LTAP center continues to distribute notices relating to new funding opportunities and the center staff presented at the American Public Works Association (APWA) chapter meeting to discuss the differences between the current/past state LRSP requirements and the new FHWA requirements for LRSPs.

#### WEST VIRGINIA



The West Virginia Local Technical Assistance Program (WVLTAP) held their regular *Roads Scholar* training classes, with a concentrated effort focused on strengthening partnerships in FY 2022. As a result, the LTAP center co-hosted three events. A partnership between the LTAP center, the FHWA and the West Virginia Department of Transportation Division of Highways (WVDOT/WVDOH) offered the WV Unmanned Aerial Systems (UAS) Workshop, which helped expand the reach of the EDC-5 UAS innovation.

A joint effort between the LTAP center, the West Virginia Association of Metropolitan Planning Organizations (WVAMPO), and the WVDOT/DOH supported the Transportation Planning Conference. Through this effort, the LTAP center has identified training and technical assistance needs in areas such as American with Disabilities Act and the MPO contacts have been instrumental in promoting the LTAP center services to municipalities, and coordinating virtual and in-person training.

The Roadway Management Conference (RMC), a collaboration between the Mid-Atlantic LTAP centers in Delaware, Maryland, Pennsylvania, Virginia, and West Virginia was hosted in Wheeling, West Virginia with participants from each of the Mid-Atlantic Region states. The conference provided in classroom presentations with outdoor demonstrations and vendors. The event supported the public workers in attendance to learn from each other and share their expertise which is mission-critical focal point of the LTAP center to facilitate others to adapt to changing needs and circumstances. Feedback from the Advisory Board members, WV LTAP center clientele, and funding partners, support the continued improvement in their training delivery methods.

#### WISCONSIN

The Wisconsin Transportation Information Center (WILTAP) has made significant improvements through partnerships with (County Highway Association, Local Government Extension, Wisconsin DOT, FHWA, and League). The center, in partnership with Traffic Operations and Safety Laboratory, researched the benefits of liquid application of brine for several winters. The work included a collaboration with (Jefferson and Wood counties) to implement friction-based performance measuring. The center has several websites to share information and is intricately involved with data gathering, stakeholder engagement, and reviewing/editing applications.



#### WYOMING

The **Wyoming Technology Transfer Center** at the **University of Wyoming** offered two new training programs in FY 2022, the line flaggers certification training program in coordination with the Wyoming Department of Transportation (DOT) and the Wyoming Associated General Contractors (AGC). All flaggers working on state projects will be certified through this program and a few hundred individuals have been certified. The ACI certification training program, established in cooperation with AGC of Wyoming, is the only ACI certification program in the state and six ACI classes have been scheduled in the second quarter of 2023.

### LIST OF TTAP CENTER LOCATIONS

TTAP Centers	Bureau of Indian	States within Region	Point of Contact	Location	Website
	Affairs Regions				
Eastern	Eastern Midwest	AL, AR, CT, DE, FL, GA, IL, IN, IA, KY, LA, ME, MD, MA, MI, MN, MS, MO, NH, NJ, NY, NC, OH, RI, SC, TN, VT, VA, WV, WI	Director: David Noyce Email: danoyce@wisc.edu Phone: 608-265-1882  Associate Director: Andrea Bill Email: bill@wisc.edu Phone: 608-890-1882	2205 Engineering Hall 1415 Engineering Drive Madison, WI 53706	TBD
Southern	Eastern Oklahoma Southern Plains	KS, OK, TX	Director Kim Johnson Email: kimberly.ann.johnson@okstate.edu Phone: 405-744-9907	1201 S Innovation Drive Stillwater, OK 74074	https://ceat.okstate.edu/extension/ttap/
Southwestern	Navajo Southwest	CO, NM, AZ - including Navajo	Director: Todd Macalady Email: todd@tribaltrans.com Phone: 480-738-8989  Coordinator: Becky Tremonte Email: becky@tribaltrans.com Phone: 602-910-8367	100 Sun Avenue NE Suite 650 Albuquerque, NM 87109	https://www.swttap.com/
Northern	Rocky Mountain Great Plains	MT, NE, ND, SD, WY	Director: Ron Hall Email: ronald.hall@ndsu.edu Phone: 970-217-9076	Bismarck, North Dakota 608 East Boulevard Ave. Bismarck, ND 58505- 0700	https://www.northernttap.org/
Western	Pacific Western	AZ - excluding Navajo, CA, HI, NV, UT	TBD	TBD	TBD
Northwestern	Northwest	ID, OR, WA	Director: Yinhai Wang Email: yinhai@uw.edu Phone: 206-616-2696  Associate Director: Margo Hill Email: mhill86@ewu.edu	University of Washington Civil and Environmental Engineering More Hall Room 121F Seattle, WA 98195-2700	https://nwttap.org/
Alaskan	Alaska	AK	Director: Billy Connor Email: bgconnor@alaska.edu Phone: 907-474-5552  Coordinator: Vicky Wolf Email: vgwolf@alaska.eduPhone Phone: 907-474-1989  Support Staff: Nathan P. Belz, Ph.D. Email: npbelz@alaska.edu Phone: 907-474-5765	1764 Tanana Loop, ELIF Suite 240 PO Box 755910 Fairbanks, Alaska 99775-5910	https://aidc.uaf.edu/ttap

### LIST OF LTAP STATE CENTER LOCATIONS

State	Center Name	Address	Phone Number	Website
Alabama	Alabama Transportation Research Institute	Samuel Ginn College of Engineering 1301 Shelby Center Auburn, Alabama 36849	334-844-2308	http://eng.auburn.edu/atap/
Alaska	Alaska Research, Development, & Technology Transfer	Statewide Design & Engineering Services Alaska DOT & Public Facilities Anchorage, AK 99501	907-269-7383	http://www.dot.state.ak.us/ stwddes/research/
Arizona	Arizona LTAP	1130 North 22nd Avenue Phoenix, AZ 85009	602-712-4050	https://www.azltap.org/
Arkansas	Arkansas Technology Transfer Center	1 University of Arkansas Fayetteville, AR 72701	501-569-2380	https://cttp.uark.edu/ technology- transfer/index.php
California	California LTAP Center	3000 State University Drive Sacramento, CA 95819-6103	916-278-4433	http://www.californialtap.org/
Colorado	Colorado LTAP	4616 S. Shields St, Suite BP171 Fort Collins, CO 80526	720-616-8982	http://www.ColoradoLTAP.org
Connecticut	Connecticut Technology Transfer Center	270 Middle Turnpike Unit 5202 Storrs, CT 06269-5202	860-486-5400	https://t2center.uconn.edu/
Delaware	Delaware T2 / LTAP Center	355A DuPont Hall University of Delaware Newark, DE 19716	302-831-6241	https://sites.udel.edu/dct/t2- center/
Florida	Center for Urban Transportation Research	University of South Florida	352-273-1670	https://floridaltap.org/
Georgia	Georgia Department of Transportation LTAP Center	3993 Aviation Circle Atlanta, GA 30336	404-507-3437	http://www.dot.ga.gov/ PartnerSmart/Local/Pages/ LTAP.aspx
Hawaii	State of Hawaii Department of Transportation	2530 Likelike Highway Honolulu, HI 96819	808-832-3405 Ext 105	http://hidot.hawaii.gov/ highways/other/hawaii-local- technical- assistance-program/
Idaho	LHTAC T2 Center	3330 W. Grace Street Boise, ID 83703	208-344-0565	https://lhtac.org/
Illinois	Illinois Technology Transfer Center	2300 S. Dirksen Parkway Springfield, IL 62764	217-782-7820	http://idot.illinois.gov/ transportation-system/local- transportation-partners/ county- engineers-and-local- public- agencies/technology- transfer- center/index
Indiana	Indiana LTAP	504 West State Street West Lafayette, IN 47907-2058	765-494-2900	https://docs.lib.purdue.edu/ inltap/
Iowa	Iowa LTAP	2711 South Loop Drive Suite 4700 Ames, IA 50010-8664	515-294-8103	https://iowaltap.iastate.edu/

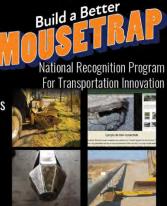
Kansas	University of Kansas Transportation Center	1536 W 15th Street Suite G 520 Lawrence, KS 66045	785-864-5658	http://kutc.ku.edu/ltap
Kentucky	Kentucky Transportation Center	176 Raymond Building Lexington, KY 40506-0281	800-432-0719	https://www.kyt2.com/
Louisiana	Louisiana LTAP Technology Transfer Center	4101 Gourrier Avenue Baton Rouge, LA 70808	225-767-9131	http://www.ltrc.lsu.edu/ltap/
Maine	Maine Local Roads Center	24 Child Street Augusta, ME 04330	800-498-9133	https://www.maine.gov/mdot/ mlrc/
Maryland	Center for Advanced Transportation Technology and Maryland T2 Center	5000 College Avenue 2200 Technology Ventures Bldg., College Park, MD 20740	301-403-4623	http://www.mdt2center.umd. edu/
Massachusetts	Massachusetts LTAP - Baystate Roads	214 Marston Hall Amherst, MA 01003	413-545-2604	https://www. umasstransportationcenter. org/umtc/Baystate_Roads.asp
Michigan	Michigan Local Technical Assistance Program	309 Dillman Hall 1400 Townsend Drive Houghton, MI 49931	906-487-2102	http://www.michiganltap.org/
Minnesota	Minnesota LTAP	University Office Plaza, Suite 440 2221 University Avenue, SE Minneapolis, MN 55414	612-626-1077	http://www.mnltap.umn.edu/
Mississippi	Mississippi LTAP	401 North West Street Jackson, MS 39201	601-359-7685	https://mdot.ms.gov/portal/ LTAP/
Missouri	Missouri LTAP	710 University Drive Suite 121 Rolla, MO 65409-1340	573-341-7200	https://mltrc.mst.edu/ moltaphome/
Montana	Montana Local Technical Assistance Program	2327 University Way Room 230 Bozeman, MT 59715	406-994-6100	http://www.montana.edu/ltap/
Nebraska	Nebraska Local Technical Assistance Program	650 J Street, Suite 215 A Lincoln, NE 68508	402-472-5748	https://www.ltap.unl.edu/ neltap/default.asp
Nevada	Nevada LTAP Center	Airport Plaza Office Bldg. 1755 E. Plumb Lane, Suite 264 Reno, Nevada 89502	775-420-4811	https://nvltap.com/
New Hampshire	UNH - Technology Transfer Center	33 Academic Way Durham, NH 03824	603-862-0030	https://t2.unh.edu/contact-us
New Jersey	New Jersey Local Technical Assistance Program	100 Brett Road Piscataway, NJ 08854-8058	848-445-0579	https://cait.rutgers.edu/njltap/
New Mexico	New Mexico LTAP	1 University of New Mexico Albuquerque, NM 87131	505-277-0767	http://ltap.unm.edu/
New York	Cornell Local Roads Program	106 Riley Robb Hall Ithaca, NY 14853	607-255-8033	https://www.clrp.cornell.edu/ clrp/about.html
North Carolina	North Carolina LTAP	909 Capability Drive Research Building IV Raleigh, NC 27606	919-515-8899	https://itre.ncsu.edu/focus/ ltap/
North Dakota	North Dakota LTAP	515 ½ E. Broadway Suite 101 Bismarck, ND 58501	701-328-9855	https://www.ndltap.org/

Ohio	Ohio LTAP Center	1980 West Broad Street Columbus, OH 43223	614-466-7170	http://www.dot.state. oh.us/Divisions/Planning/ LocalPrograms/LTAP/Pages/ default.aspx
Oklahoma	Oklahoma Local Technical Assistance Program	5202 N Richmond Hill Drive Stillwater, OK 74075	405-744-7496	http://ltap.okstate.edu/
Oregon	Oregon Technology Transfer Center	355 Capitol Street NE, MS 11 Salem, OR 97301-3871	888-275-6368	https://www.oregon.gov/odot/ programs/t2/Pages/default. aspx
Pennsylvania	PennDOT LTAP	400 North Street 6th Floor Harrisburg, PA 17120	800-367-5827	https://gis.penndot.gov/ltap/
Puerto Rico	Puerto Rico Transportation Technology Transfer Center	Puerto Rico Transportation Technology Transfer Center Civil Engineering and Surveying Department University of Puerto Rico – Mayagüez Campus P.O. Box 9000 Mayagüez, P.R. 00681- 9000	787-832-4040	http://prltap.org/eng/
Rhode Island	Rhode Island Department of Transportation RILTAP	2 Capitol Hill, #119 Providence, RI 02903	401-222-2450	http://www.dot.ri.gov/about/ RILTAP.php
South Carolina	South Carolina Transportation Technology Transfer Service	202 Hugo Drive Clemson, SC 29634	864-656-4183	https://www.scltap.org/
South Dakota	South Dakota Local Transportation Assistance Program	1175 Medary Avenue Brookings, SD 57006	605-688-4121	https://www.sdstate.edu/ jerome-j-lohr-engineering/ sd- local-transportation- assistance-program
Tennessee	Tennessee Transportation Assistance Program	309 Conference Center Building Knoxville, TN 37996-4133	865-974-5255	http://ttap.utk.edu/
Texas	TxLTAP	140 W. Mitchell Street Arlington, TX 76019	817-272-9617	http://www.txltap.org/
Utah	Utah LTAP Center	4111 Old Main Hill Logan, UT 84322-4111	435-797-2918	https://www.utahltap.org/
Vermont	Vermont Local Roads Program	1716 US Route 302 Montpelier, VT 05633-5001	802-828-3537	https://localroads.vermont. gov/
Virginia	UVA Transportation Training Academy	351 McCormick Road Thornton Hall, Room B122A Charlottesville, VA 22904-4742	434-982-2897	http://uva-tta.net/
Washington	Washington State LTAP Center	310 Maple Park Avenue SE Olympia, WA 98504-7300	360-705-7355	https://www.wsdot.wa.gov/
West Virginia	West Virginia LTAP	395 Evansdale Drive, Morgantown, WV 26505	304-293-9924	https://www.wvltap.org/
Wisconsin	Wisconsin Transportation Information Center	432 North Lake Street Madison, WI 53706	800-442-4615	https://epd.wisc.edu/tic/
Wyoming	Wyoming Technology Transfer Center (WyT2/ LTAP)	1000 E. University Avenue Dept. 3295 Laramie, WY 82071	307-766-6743	http://www.uwyo.edu/wyt2



Local Aid Support at FHWA encompasses a wide range of products and services, including the Build a Better Mousetrap Program, Free Online Training for local agencies, and Geosynthetics Mobile App.

The Build a Better Mousetrap (BABM) national recognition program highlights locally relevant, creative solutions and transportation innovations developed by local agencies.



# **Training Programs** for Local Agencies



FHWA Local Aid Support and the LTAP/TTAP Centers offer a variety of training options, practical tools, and resources for advancing best practices and innovation.

### GEOSYNTHETICS INSTALLATION MOBILE APP



Through the Geosynthetics Mobile App, road engineers have instant access to real-time information regarding the use of geosynthetics in their projects. http://bit.ly/Geo\_App



#### Subscribe to Our Newsletter!



Stay connected with FHWA Local Aid Support (LAS) by signing up to receive the LAS quarterly e-Newsletter. http://bit.ly/LAS\_Enewsletter

# Federal Highway Administration LOCAL AID SUPPORT

Local Aid Support at FHWA encompasses a wide range of products and services, including the Build a Better Mousetrap Program, Free Online Training for local agencies, and Geosynthetics Mobile App.

# Build a Better Mousetrap

# **National Recognition Program for Transportation Innovation**

The Build a Better Mousetrap (BABM) national recognition program highlights locally relevant, creative solutions and transportation innovations developed by local agencies.

## **Training Programs for Local Agencies**

FHWA Local Aid Support and the LTAP/TTAP Centers offer a variety of training options, practical tools, and resources for advancing best practices and innovation.

## GEOSYNTHETICS INSTALLATION MOBILE APP

Through the Geosynthetics Mobile App, road engineers have instant access to real-time information regarding the use of geosynthetics in their projects.

http://bit.ly/GEO\_APP

## Subscribe to Our Newsletter

Stay connected with FHWA Local Aid Support (LAS) by signing up to receive the LAS quarterly e-Newsletter. http://bit.ly/LAS\_Enewsletter

