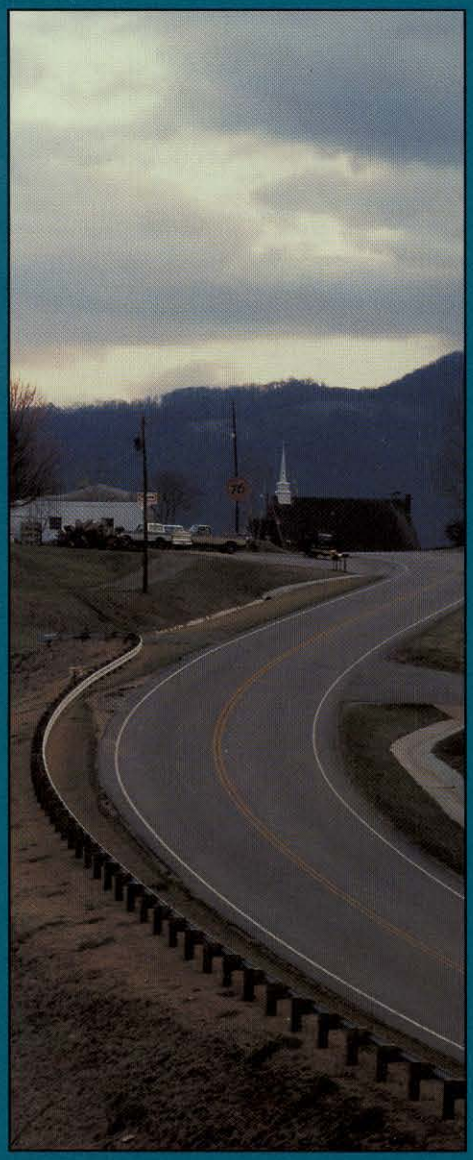
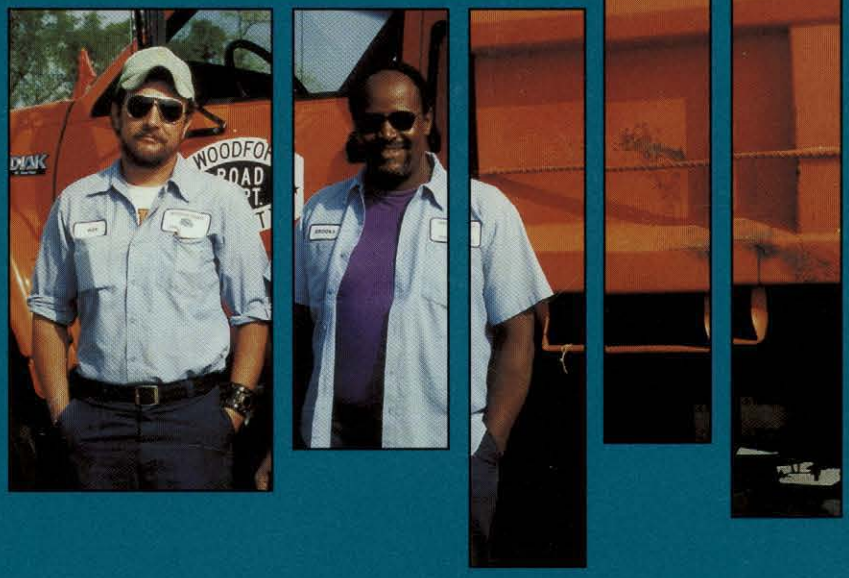
U.S. Department
of Transportation

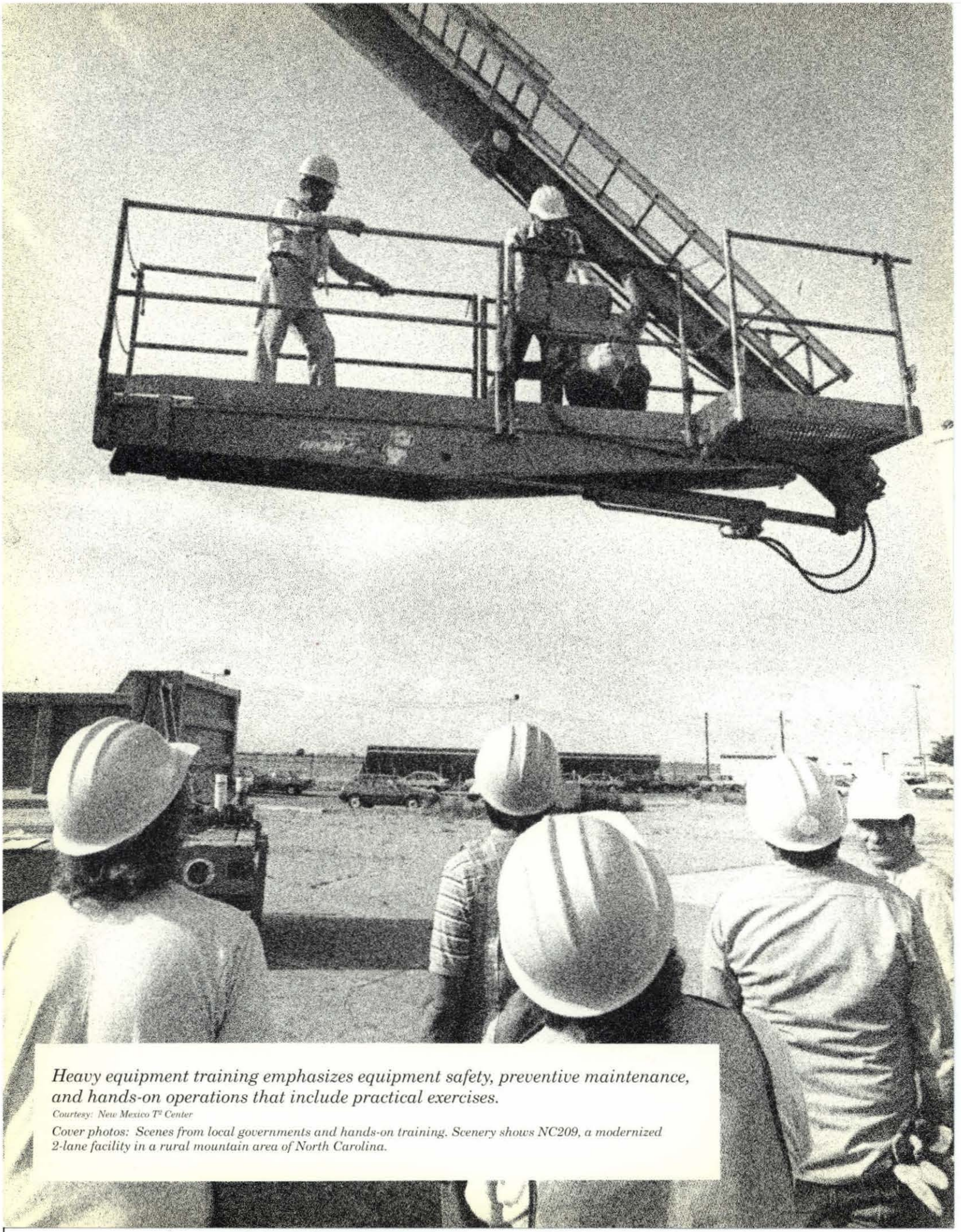
Federal Highway Administration



LTAP The Local Technical Assistance Program



Technology transfer tools for local transportation excellence



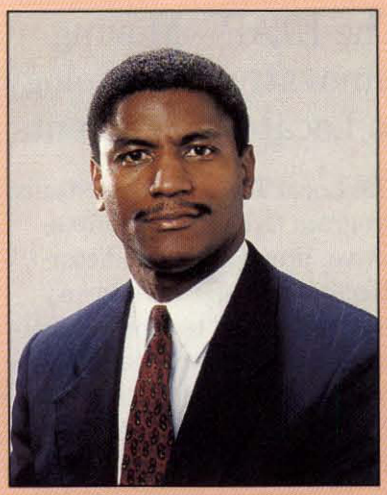
Heavy equipment training emphasizes equipment safety, preventive maintenance, and hands-on operations that include practical exercises.

Courtesy: New Mexico T² Center

Cover photos: Scenes from local governments and hands-on training. Scenery shows NC209, a modernized 2-lane facility in a rural mountain area of North Carolina.

Message from the Administrator

The Clinton Administration has demonstrated a commitment to improving our Nation's infrastructure and providing the public with an efficient, seamless transportation system. To that end, the Local Technical Assistance Program (LTAP) provides a vital link between new highway technologies and local communities throughout the Nation. The LTAP network is living proof that the partnerships that have evolved among the States, academia, local highway agencies, tribal governments, and the Federal Government can accomplish more than these groups working in isolation. This partnership approach enables new ideas and technologies to be put to use quickly, efficiently, and in a way that is responsive to local needs. Innovative activities and creative execution are hallmarks of this program. These LTAP dynamics will help to support Secretary of Transportation Peña's goal of maintaining and building a transportation system for the Nation that will enhance our economic viability and international competitiveness. I look forward to continued success for this growing, vigorous program.



Rodney E. Slater
Federal Highway Administrator

The LTAP—Moving Innovative Technology to Local Governments

The Local Technical Assistance Program (LTAP) stimulates active, progressive, and cost-effective transfer of highway technology and technical assistance to rural and local governments. The LTAP accomplishes this by funding a variety of activities and projects that link local highway agencies, tribal governments, the States, universities, and the Federal Government. A network of LTAP centers brings technology transfer services, products, and educational resources to the local level.

The program is directed by the State and Local Programs Branch of the Office of Technology Applications, under the Federal Highway Administration's (FHWA) Associate Administrator for Safety and System Applications. Support for the centers comes from Federal LTAP funds, State Departments of Transportation, the Bureau of Indian Affairs, universities, local agencies, and finances designated by State legislation. The Federal-aid process requires support and involvement from State highway agencies. Each center provides a unique range of transportation-related skills and expertise geared toward improving the local transportation infrastructure. Community groups tap these valued resources, providing active involvement and financial support for local LTAP activities. A local government in Maine, for example, volunteers projects to support motor grader training offered by the local LTAP center.

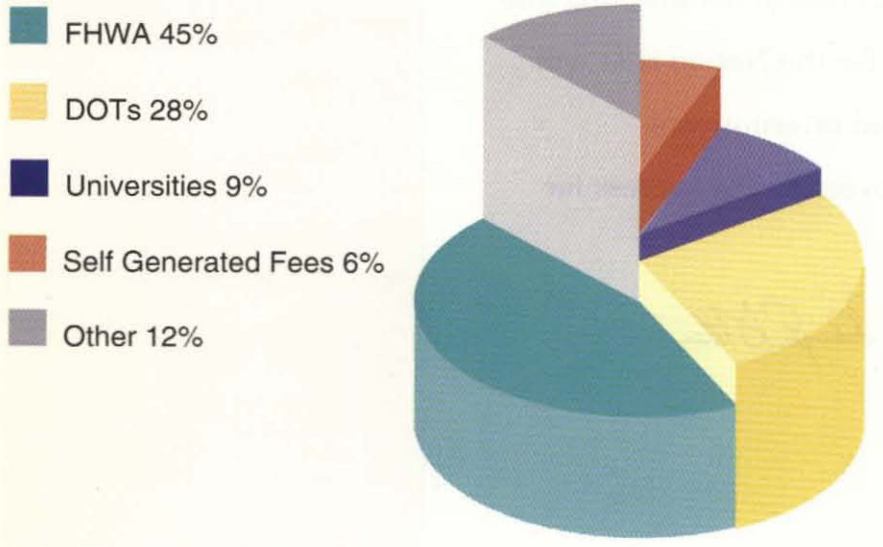
The LTAP centers are located around the Nation, in each State and Puerto Rico. In addition to these 51 centers, four centers were established in 1993 to offer assistance to American Indian tribal governments. The LTAP centers, generally located at universities or State highway agencies, serve over 38,000 rural and local agencies with training, technical assistance, advice, and other resources tailored to best meet the needs and improve the skills of the local transportation workforce.

Courtesy: Kentucky Transportation Center

▲ *LTAP centers link users with appropriate resources.*

▲ *Display of useful technology for local application.*

◀ 1993 Budgets for T2 Centers



A recent study shows a return of 8:1 for LTAP.

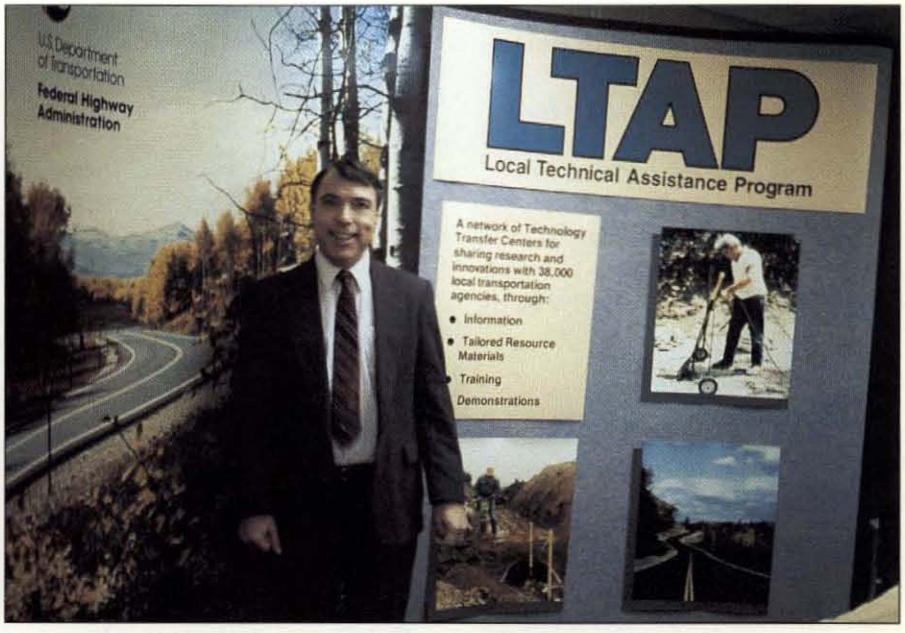
Source: "A Study of Benefits, Accomplishments and Research Needs of the LTAP," Publication No. FHWA-SA-94-037

A Brief Look Back

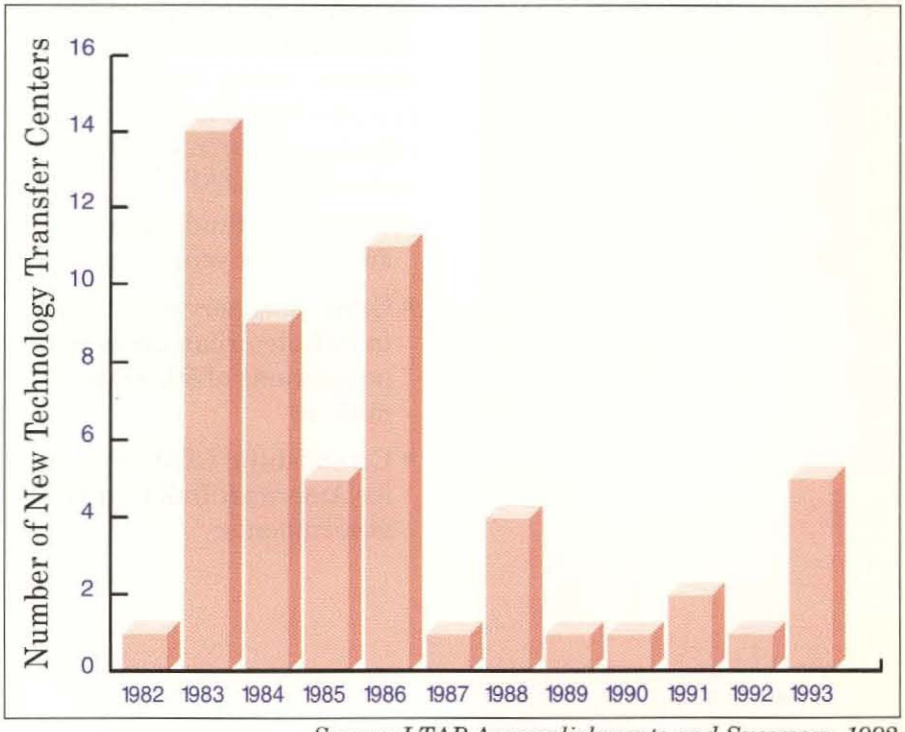
The LTAP was first established in 1982 as the Rural Technical Assistance Program (RTAP). It began as a collection of twelve FHWA-funded national technical projects that developed and delivered training, videotape presentations, computer software, manuals, and technical products to rural transportation agencies. Between 1982 and 1989, the RTAP flourished and grew to a program of more than 100 individual projects. One of these projects, which proved to be a channel for transportation technology, grew into the RTAP center network. It began with 10 pilot programs strategically located throughout the United States, gaining solid support from State governments and local agencies.

After 10 successful years of increasing service to its rural customers, the program was expanded through the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, becoming a local program (or LTAP) that includes urban communities and tribal governments.

This phenomenal growth has been supported through successful partnerships created among FHWA field offices, State highway agency staffs, college and university educators, and national associations such as the American Association of State Highway and Transportation Officials, the American Public Works Association, and the National Association of County Engineers.



▲ *FHWA's LTAP program is promoted at meetings and conventions nationwide.*



Source: LTAP Accomplishments and Successes, 1992

▲ Growth of LTAP Technology Transfer Center Network

"ISTEA provides us with an opportunity to stretch our imagination and skills as we begin to serve new customers. The future holds exciting prospects for the LTAP as we continue to improve and evolve our already dynamic service."

Ray Griffith, FHWA Office of Technology Applications
1992 LTAP Annual Meeting

ISTEA and LTAP

Courtesy: Utah Technology Transfer Center

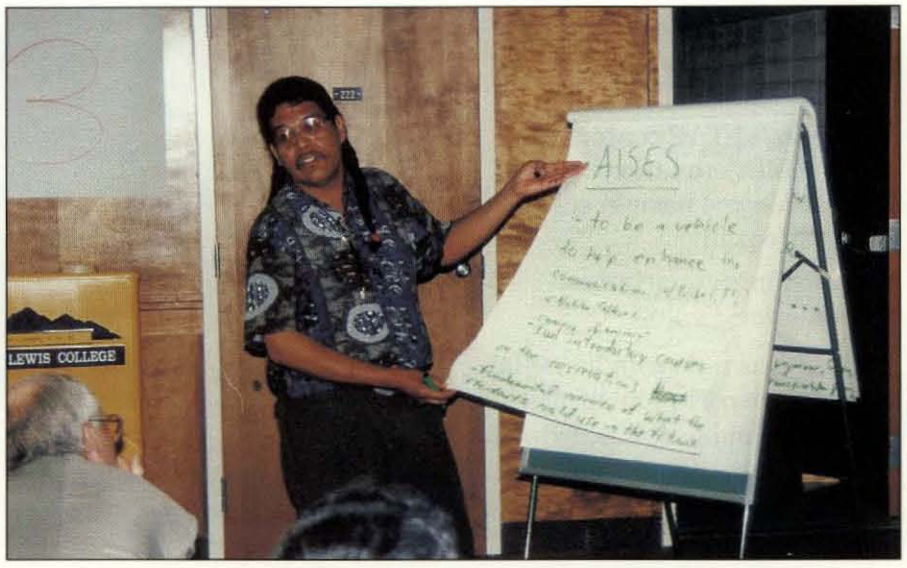
Briefing to tribal members in Utah.

ISTEA legislation provides authorizations for highways, highway safety, and mass transportation until 1997. It significantly broadened the scope of the LTAP by:

- Increasing funding to $6 million a year;
- Expanding service coverage to include urban areas with populations of 50,000 to one million;
- Establishing LTAP centers for American Indian tribal governments;
- Assisting local transportation agencies with development of management systems for pavements, bridges, and safety;
- Assisting local communities in addressing transportation improvements that would encourage tourism and recreational travel to promote economic development;
- Assisting American Indian tribal governments in developing intergovernmental coordination, transportation planning, and project selection.

In response to ISTEA, the FHWA entered into cooperative agreements with four universities to establish and operate new LTAP centers with a focus for tribal governments. The centers were set up in the same structure as the existing LTAP centers, but include tourism as an economic development strategy along with educational and technical assistance.

The new centers for Native Americans are jointly funded and administered by Washington, D.C. headquarters staff of the FHWA and the Bureau of Indian Affairs (BIA). They transfer highway technology to tribal governments, improve the flow of information among the FHWA, the BIA, State Departments of Transportation, and tribal governments, encourage the use of new cost-effective technology by tribal governments, and share with other centers successful ways of improving operations.



▲ *Presentation to tribal representatives by a member of the Colorado Center for Native Americans.*

◀ *A Bureau of Indian Affairs (BIA) representative discusses LTAP centers for American Indian tribal governments.*

Photos courtesy: Colorado Transportation Information Center

Tools and Techniques of the LTAP Centers

While each LTAP center has the flexibility to tailor its own program, some basic responsibilities entail:

- Publishing a quarterly newsletter;
- Serving as a clearinghouse for local transportation agencies to obtain publications, videotapes, and other technology resource documents, such as manuals and field guides;
- Maintaining a comprehensive up-to-date mailing list of rural and local officials having transportation responsibilities;
- Conducting at least 10 training courses per year for local transportation agencies;
- Providing information on new and existing technology; and
- Performing a self-evaluation of their program to assure that it continually meets the needs of local transportation agencies.

Each center uses a mix of technology transfer tools and marketing activities to meet the unique needs of their local transportation agencies. Some typical endeavors include:

- Training workshops;
- On-site demonstrations and "hands-on" training;
- "Roadshows," or circuit-rider programs that take training on the road to local road and street officials;

▲ *Tailored training: Mini-workshop on public relations for town of Swansea, Massachusetts.*

Photos courtesy of: Baystate Roads Program, Massachusetts

▲ *Organizing technical publications for the library.*

- Microcomputer software development;
- Adaptation and distribution of technical publications and user manuals;
- Studies on specialized topics; and
- Video lending libraries.

"The LTAP is one of our best sources for reference information and training—from the day-to-day pothole repair to the more complicated workshops on pavement design."

Executive Director of County Highway Department, Indiana

On-Site Service and Customized Support: Serving the Needs of a Community

The city of Aiken, South Carolina, like many others, was experiencing distressed and failing streets, with only limited resources available to correct its infrastructure problems. South Carolina's LTAP center, the Transportation Technology Transfer Service, offered a timely seminar about street maintenance, including topics such as slurry seal and proper budgeting for maintenance efforts. With the LTAP center's assistance, Aiken's Public Works Department developed a slide program which they used to justify their proposed budget for street rehabilitation. They adopted slurry sealing as an effective way to rehabilitate more miles of roadway at a tremendous cost savings. The South Carolina LTAP center was a valuable source of technical assistance in putting together an infrastructure renewal program for the city of Aiken.

Courtesy: City of Aiken, South Carolina

Slurry seal as an effective choice for road rehabilitation.

"Technology is always an idea. A problem. A solution. A better way. A new connection. A dissatisfaction. An experiment. It's the imagination working on the material world. It's a distinctively human event."

Nevada Milepost
(Newsletter of the Nevada Technology Transfer Center)
Summer, 1993

Exploring New Technologies

New LTAP center products and product specifications have been identified under direction of the FHWA State and Local Programs Branch, working in partnership with groups such as the National Association of County Engineers (NACE), the American Public Works Association (APWA), and the LTAP center staffs.

A wide range of useful—and often exciting—new technologies is being explored to expand the level and types of services provided. Satellite training classes, interactive computer disc training, and teleconferencing enhance the outreach capability of some centers. Training availability and format can be tailored to the technical needs and tight schedules of local transportation agencies.

Some innovations are adopted quickly by transportation agencies, while others take time to be developed or evaluated. A sampling of these innovative technologies include:

Computer-based Management Systems. One such system is the Road Surface Management System (RSMS) developed by the New Hampshire Technology Transfer Center. It helps to assist decisionmaking by providing inventory files, pavement condition surveys, alternative repair strategies, and maintenance plans in an electronic database. Computer-based systems such as RSMS provide the information needed to accurately plan budgets and analyze long-term costs associated with road surfaces.

Courtesy: So-Deep, Inc.

Local governments can organize and manage transportation data using a Geographic Information System (GIS).

In 1991, the highway department in Covert, New Hampshire used RSMS to determine the cost for needed reconstruction. When the estimated costs of capital improvements exceeded the capital budget, the study proved significant for providing the numbers and accurate estimates needed to win public support for increased funding.

Geographic Information Systems (GIS). Computer-based video imagery systems provide a map-like overlay for utilities, streets, or other transportation-related information. LTAP centers often arrange demonstrations

of GIS imagery applications for local transportation agencies.

The LTAP centers also venture beyond traditional boundaries and local opportunities to provide assistance to local governments.

Computer-Interactive Training Pilot Effort. Using AASHTO's two computer assisted transportation training (CATT) packages, "Traffic Control in Construction Work Areas" and "Snow and Ice Control," 12 LTAP centers evaluated the effectiveness of computer-interactive training for local transportation personnel. This technology offers local agencies greater flexibility for in-house training and provides personnel an opportunity for self-paced training.

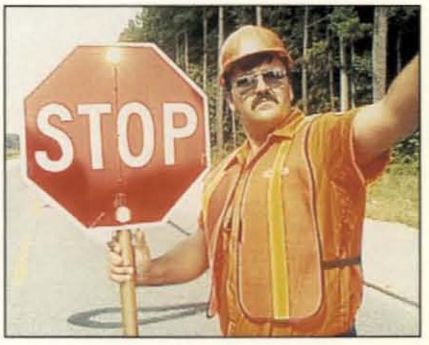
Research Application. The Strategic Highway Research Program (SHRP) was a 5-year national research program completed in 1993 that produced a number of new highway products and standards in the areas of long-term pavement performance, asphalt, concrete and structures, and highway operations. Many of the SHRP products, which were developed for State highway agencies, are useful and needed by local governments. The LTAP centers work with FHWA, which is charged with SHRP implementation, to identify those products suitable for local highway agencies. The centers then repackage the products if needed, and market and promote them to local governments.

Courtesy: Electronic Facilitators, Inc.

▲ *Interactive Computer Disc (CD) Training*

High-Tech Rural Applications. Intelligent Vehicle Highway Systems (IVHS) technologies, typically applied to large, congested urban areas, can also benefit rural highway systems. These include IVHS applications such as in-vehicle safety, advisory, and warning systems for rural railway crossings; vehicle and roadside two-way communications for Mayday! messages or alerts of upcoming hazards; and infrared or radar to identify obstacles when visibility is severly restricted. LTAP centers can assist in initiating these IVHS projects in local areas.

▼ *SHRP work zone safety devices, such as the flashing stop / slow paddle, are useful in local highway operations.*



"Innovative technology, in order to be effective, must be used. In order to be used, it must be understood and shared. The LTAP center is a...cost-effective vehicle for bringing together various entities...that share common technical problems and concerns."

Research Engineer, Wyoming Transportation Department

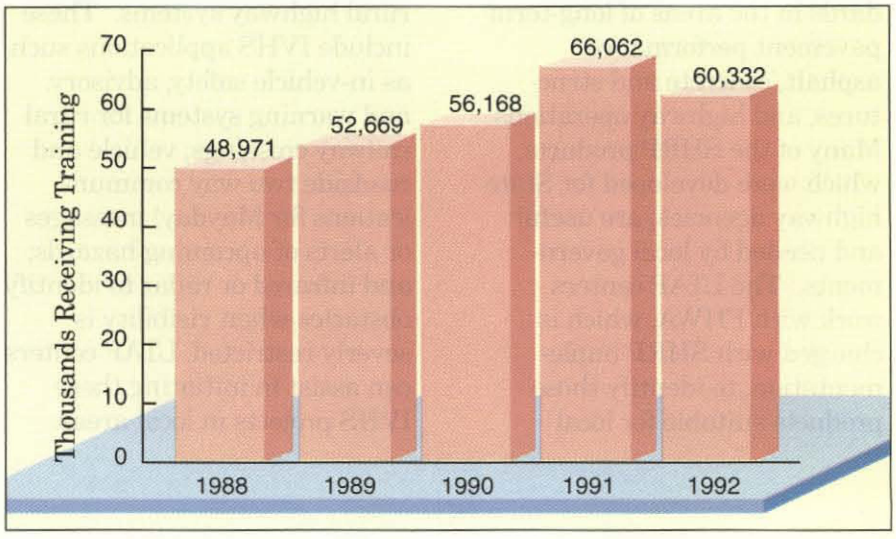
Networking

Projects typically originate from an LTAP center with the best interests, available resources, and skill levels of local agencies in mind. However, the technology transfer tools that arise from these projects can be useful for similar activities elsewhere in the Nation. Seminars, valued instructors, tailored publications, targeted videotapes, and customer communications skills developed for one agency can be shared through the LTAP network, often resulting in cooperative projects and effective resource sharing.

This information exchange among the centers, which serve as both sources and recipients of technical information, has created a cooperative spirit among transportation agencies, the States, academia, and the Federal Government. The LTAP centers strive to be responsive to local needs by involving their communities through resource committees and by soliciting feedback from users. Quite often, the user community helps to drive the training process. Training courses can be coordinated with the users who may "host" their own workshops, inviting other local agencies in surrounding counties. The result is increased participation and an expanded network of users experiencing the technology or service.

Courtesy: Kentucky Transportation Center

▲ *Training tailored for community needs.*



New regulations increase demand for training of local governments, such as the peak in 1991 to meet the Commercial Driver's License requirements. SOURCE: T² Clearinghouse

"Public Works Day"

Developed by Wyoming's LTAP center, "Public Works Day" is a one-day training session that brings together personnel from all levels of government within the State. The goal of the program is to teach agency staff to operate equipment safely and to help overcome barriers to cooperative work among various agencies. This well-attended program has included highway maintenance personnel from city, county, and State transportation agencies, and public officials—from mayors and county commissioners to secretaries.

The program features team competitions to test equipment skills. Teams are not divided by agency, nor are participants allowed to operate the equipment with which they are most familiar. The activities of this program nurture respect for skills of other operators and help to increase interaction with colleagues in other jurisdictions.

Courtesy: Wyoming Technology Transfer Center

▲ *Testing equipment operation skill at Public Works Day.*

"Mountain of Demonstrations"

New Hampshire's LTAP center hosts an annual "Mountain of Demonstrations" that attracts over 1,000 local transportation agency personnel from the Northeast States, including LTAP directors from eight neighboring centers. Activities include technical workshops, tent and open-air displays of equipment and information, live field demonstrations of equipment, materials, and road surface management techniques, and awarding of prizes.

The fundamental one-on-one contact with new technology offered by these events generates great turnouts. Hands-on activities and real-life demonstrations are combined for an appealing presentation of technical information that is becoming more popular each year.

▲ *New Hampshire Mountain of Demonstrations.*

"The innovative measures created by the LTAP centers to get technology out the door and into the hand of the users will contribute significantly to serving the needs of an expanded clientele under ISTEA."

Bob Kelly
FHWA Office of Technology Applications

The LTAP centers connect with their ultimate customers in the course of everyday activities. FHWA Regional LTAP Coordinators convene and facilitate meetings to link with other centers and discuss cooperative activities and related efforts in technology transfer. Additionally, an annual national meeting gathers participants from every center to convene with FHWA regional and headquarters staff and representatives from other agencies. Panel discussions and formal presentations address a variety of topics, including creative programs that have been tried by some centers. Ongoing national activities, international technology transfer efforts, and new cooperative opportunities are also discussed.

▲ *LTAP representatives gather for 1993 Annual Meeting.*

▼ *Technology transfer display at LTAP Annual Meeting shows services provided.*

Financial Resource Management: The Kentucky Transportation Center Story

While providing services to local governments is the LTAP's primary purpose, spin-off benefits to State governments and private industry naturally occur. A recent report by the Kentucky Transportation Center has provided valuable information not only to local officials, but also to the Kentucky legislature, the Kentucky Department of Local Government, the Kentucky Department of Highways, transportation consultants, contractors, and material suppliers.

In Kentucky, county road financial information was fragmented and not available in a useable form. It was difficult to determine that portion of city and county government that was responsible for providing transportation services without looking at finances. Local road supervisors voiced a need for better understanding of the laws governing local roads, as well as a comparison of costs associated with managing county roads.

The Kentucky Transportation Center studied Kentucky law and gathered existing data from county budgets and expenditure statements to compile a comprehensive report on county road finance. Revenue sources were identified and explained. The report detailed county-by-county expenditures for administration, personnel, materials, equipment, and supplies. Maintenance costs per mile were calculated.

Because of the positive comments received from local officials and State legislators, and at the request of the Kentucky Department of Highways, the report will be updated and reissued every two years prior to the general session of the Kentucky General Assembly.

"This is the first time I've been able to compare the price I'm paying for asphalt with that of my neighboring counties and the statewide average, and it's very beneficial to be able to tell our citizens that our maintenance costs are well below the statewide average..."

Kentucky county executive

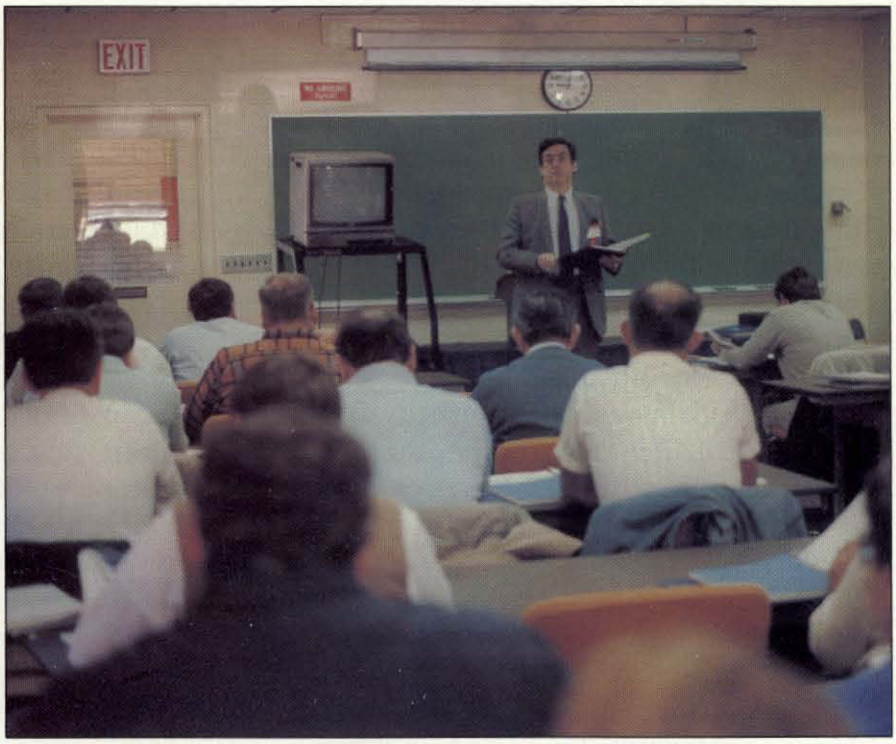
▲ *Kentucky Transportation Center staff meeting.*

▲ *The last swinging bridge...an Appalachian legacy.*

Photos courtesy: Kentucky Transportation Center

The Technology Transfer (T^2) Clearinghouse—Linking the Centers into a Network

The LTAP centers nationwide are linked into an exchange network by the T^2 Clearinghouse located in Washington, D.C. The Clearinghouse, which is operated under FHWA contract by the American Public Works Association, provides the centers with information about available technology and services from a variety of sources, including other centers.



Courtesy: Connecticut Transportation Institute

▲ *On-site training.*

Clearinghouse services include:

- An LTAP Network newsletter to facilitate networking among the centers;
- An LTAP Journal newsletter to keep State and Federal transportation agencies advised of LTAP activities;
- A directory, *State and Local Highways Training and Technical Resources,* that provides LTAP centers with new developments in training;
- A videotape library and catalog;
- A training exchange catalog that describes available workshops developed by LTAP centers;
- Brief profiles of the LTAP centers that detail project statistics, activities, products, and yearly services; and
- A publication that describes the making of an effective LTAP network, *LTAP: Local Technical Assistance Program, Accomplishments and Successes.*

Sharing the Success of LTAP

The vision, growth, and continued success of the LTAP centers have sparked international interest. The LTAP served as a model for the Pan American Institute of Highways, which has a network of national technology transfer centers that serve South and Central America and the Caribbean. Many countries, including Canada, Finland, Australia, and the newly independent Baltic States, are requesting information to establish a technology transfer network.

FHWA's Office of International Programs is fostering development of International Technology Exchange Centers (ITECs) which are modeled after U.S. LTAP centers. Like the ITEC recently established in Helsinki, Finland, these centers facilitate the exchange of highway information and technology with other advanced countries. The FHWA furnishes information on U.S. highway technology and products; and receives in exchange new, implementable ideas and highway technology for circulation throughout the U.S. highway community via FHWA, State highway agencies, and the LTAP centers.

Photos courtesy: National Highway Institute

▲*LTAP expertise reaches across the Americas.*

Courtesy: Brian Gilleran

▲*International scanning reveals useful technology applications such as integrated bicycle/pedestrian facilities in the town of Houten, in the Netherlands.*

Looking Ahead

Increasing demand for services and establishment of new centers to serve those demands speak well of LTAP efforts. Personal attention to customer needs combined with networking and sharing of LTAP successes has resulted in efficiencies of time, effort, and money. All LTAP centers benefit from opportunities to share different approaches to transportation challenges in their communities and from participation in cooperative projects.

The LTAP was charged with new opportunities forged by the 1991 ISTEA legislation. The energetic network of centers is moving forward, providing opportunities to expand the program's vision, drive, and scope both nationally and internationally.

The success of the past, the interest and support resulting from those accomplishments, form an excellent base for moving forward. The second half of the decade of the 90's will see the program moving to an even higher level of service and achievement.

▲ *Local courses extend the reach of useful training.*

▼ *Local technical assistance.*

LTAP Center Locations

Alabama - Technology Transfer Program
107 Ramsey Hall
Engineering Extension Service
Auburn University, Alabama 36849-5331
(205) 844-4370

Alaska - Transportation Technology Transfer Program
2301 Peger Road
Fairbanks, Alaska 99709-5316
(907) 451-5320

Arizona - Center for Advanced Transportation Systems Research
Arizona State University
P.O. Box 876306
Tempe, Arizona 85287-6306
(602) 965-2744

Arkansas - Arkansas State Highway and Transportation Department T^2 Center
P.O. Box 2261
Little Rock, Arkansas 72203
(501) 569-2249

California - University of California T^2 Program
Richmond Field Station
1301 South 46th Street, Building 452
Richmond, California 94804
(510) 231-9590

Colorado - Transportation Information Program
Colorado State University
Engineering Research Center A113
Fort Collins, Colorado 80523
(303) 491-8648

Connecticut - Technology Transfer Center
Transportation Institute, U-37TI
191 Auditorium Road
University of Connecticut
Storrs, Connecticut 06269-3037
(203) 486-5400

Delaware - Department of Transportation T^2 Center
P.O. Box 778
Dover, Delaware 19903
(302) 739-3267

Courtesy: Illinois DOT

Rural road scene.

Florida - Technology Transfer Program
512 Weil Hall,
University of Florida
Gainesville, Florida 32611-6585
(904) 392-0378

Georgia - Department of Transportation's Technology Transfer Center
No. 2 Capitol Square, Room 301
Atlanta, Georgia 30334-1002
(404) 656-5364

Hawaii - Technology Transfer Program
2800 Woodlawn Drive, Suite 280
Honolulu, Hawaii 96822
(808) 539-3823

Idaho - Idaho T^2 Center
P.O. Box 7129
Boise, Idaho 83707-1129
(208) 334-8271

Illinois - Technology Transfer Program
Illinois Department of Transportation
2300 Dirksen Parkway, Room 205
Springfield, Illinois 62764
(217) 785-5048

Indiana - Highway Extension and Research Project for Indiana Counties and Cities
1284 Civil Engineering Building
Purdue University
West Lafayette, Indiana 47907-1284
(317) 494-2164

Courtesy: Pennsylvania Local Roads Program

A Roadshow session demonstrating new technology to local government personnel.

Iowa - Iowa Transportation Center
2521 Elwood Drive, Suite 125
Ames, Iowa 50010-8263
(515) 294-8103

Kansas - Technology Transfer Program for Rural Transportation
2011 Learned Hall
Lawrence, Kansas 66045
(913) 864-5658

Kentucky - Technology Exchange Program
Kentucky Transportation Center
University of Kentucky
140A CE/KTC Building
Lexington, Kentucky 40506-0281
(606) 257-4513

Louisiana - LTAP T^2 Center
Louisiana State University
4101 Gourrier Avenue
Baton Rouge, Louisiana 70808-4443
(504) 767-9118

Maine - Maine Local Roads Center
Maine Department of Transportation
Technical Services Division - Station 16
Augusta, Maine 04333
(207) 287-2151

Maryland - Transportation T^2 Program
Department of Civil Engineering
University of Maryland
College Park, Maryland 20742
(301) 405-2009

Massachusetts - Baystate Roads Program
214 Marston Hall
Civil Engineering Department
University of Massachusetts
Amherst, Massachusetts 01003
(413) 545-2604

Michigan - Local Technical Assistance Program
Department of Civil and Environmental Engineering
Michigan Technological University
1400 Townsend Drive
Houghton, Michigan 49931-1295
(906) 487-2102

Minnesota - Technology Transfer Program
Center for Transportation Studies
University of Minnesota
500 Pillsbury Drive, SE
110 Civil & Mineral Engineering Building
Minneapolis, Minnesota 55455
(612) 625-5829

Mississippi - Center for Technology Transfer
Jackson State University
P.O. Box 18125
1400 Lynch Street
Jackson, Mississippi 39217-0625
(601) 968-2339

Missouri - Technology Transfer Assistance Program
Missouri Highway & Transportation Department
P.O. Box 270
Jefferson City, Missouri 65102
(314) 751-0852

Montana - LTAP
Department of Civil and Agricultural Engineering
Montana State University
Bozeman, Montana 59717-0390
(406) 994-6101

Nebraska - T^2 Center
205 NCCE, 33rd & Holdrege
University of Nebraska-Lincoln
Lincoln, Nebraska 68583-9602
(402) 472-2844

Nevada - Transportation T^2 Center
College of Engineering/257
University of Nevada
Reno, Nevada 89557-0030
(702) 784-1433

New Hampshire - Technology Transfer Center
231 Kingsbury Hall
University of New Hampshire
Durham, New Hampshire 03824-3591
(603) 862-2826

New Jersey - Rutgers R^2T^2 Center
P.O. Box 5079
Rutgers University
Building 4161, Livingston Campus
New Brunswick, New Jersey 08903-5079
(908) 932-5074

New Mexico - Technology Transfer Program
P.O. Box 1149
1350 Alta Vista Street
Building T^2
Sante Fe, New Mexico 87504-1149
(505) 827-5281 or in State: (800) 523-3028

New York - Cornell Local Roads Program
416 Riley-Robb Hall
Ithaca, New York 14853-5701
(607) 255-8033

North Carolina - Technology Transfer Program
The University of North Carolina Institute for
Transportation Research and Education
P.O. Box 17489
Raleigh, North Carolina 27619-7489
(919) 878-8080

North Dakota - Transportation T^2
Civil Engineering Department
CIE Building Room 201H
North Dakota State University
Fargo, North Dakota 58105
(701) 237-7051

Ohio - Transportation Technology Transfer
Center
470 Hitchcock Hall
2070 Neil Avenue
Columbus, Ohio 43210-1275
(614) 292-2871

Oklahoma - Center for Local Government
Technology
308 CITD
Oklahoma State University
Stillwater, Oklahoma 74074
(405) 744-6049

Oregon - Technology Transfer Center
2950 State Street, Room 103
Salem, Oregon 97310-0784
(503) 378-3421

Pennsylvania - Pennsylvania Local
Roads Programs
Penn State - Harrisburg
68 CRAGS Building
777 W. Harrisburg Pike
Middletown, Pennsylvania 17057-4898
(717) 948-6098

Puerto Rico - Transportation T^2 Center
Civil Engineering Department
University of Puerto Rico, Mayaguez Campus
Mayaguez, Puerto Rico 00681
(809) 834-6385

Rhode Island - Technology Transfer Center
Rhode Island Department of Administration
Division of Planning
One Capitol Hill
Providence, Rhode Island 02908-5872
(401) 277-1235

South Carolina - Transportation Technology
Transfer Service
Department of Civil Engineering
Room 112, Lowry Hall
Clemson University
Clemson, South Carolina 29634-0911
(803) 656-3000

Courtesy: Kentucky Transportation Center

APWA "Roadeo"

South Dakota - Transportation Technology Transfer Service(T^3S)
Box 2220 Harding Hall
South Dakota State University
Brookings, South Dakota 57007-2220
(605) 688-4185

Tennessee - Transportation Assistance Program
354 South Stadium
The University of Tennessee
Knoxville, Tennessee 37996-0700
(615) 974-5255

Texas - Local Technical Assistance Program
Transportation Training Division
Texas Engineering Ext. Service
The Texas A&M University System
College Station, Texas 77843-8000
(409) 845-4457

Utah - Technology Transfer Center
Utah State University
Depart. of Civil & Environmental Engineering
Logan, Utah 84322-4111
(801) 750-2933

Vermont - Local Roads Program
Saint Michael's College
Winooski Park
Colchester, Vermont 05439
(802) 654-2652

Virginia - Transportation T^2 Center
P.O. Box 3817, University Station
Charlottesville, Virginia 22903-0817
(804) 293-1966

Washington - Northwest T^2 Center
Washington State Department of
Transportation-Local Programs
Transportation Building
Olympia, Washington 98504-7390
(206) 753-7390

West Virginia - Transportation T^2 Center
Department of Civil Engineering
West Virginia University
P.O. Box 6101
Morgantown, West Virginia 26506-6101
(304) 293-3031 Ext. 629

Wisconsin - Transportation Information Center
University of Wisconsin-Madison
432 North Lake Street, Room 701
Madison, Wisconsin 53706
(608) 262-0422

Wyoming - Technology Transfer Center
P.O. Box 3295
University of Wyoming
Laramie, Wyoming 82071-3295
(307) 766-6743

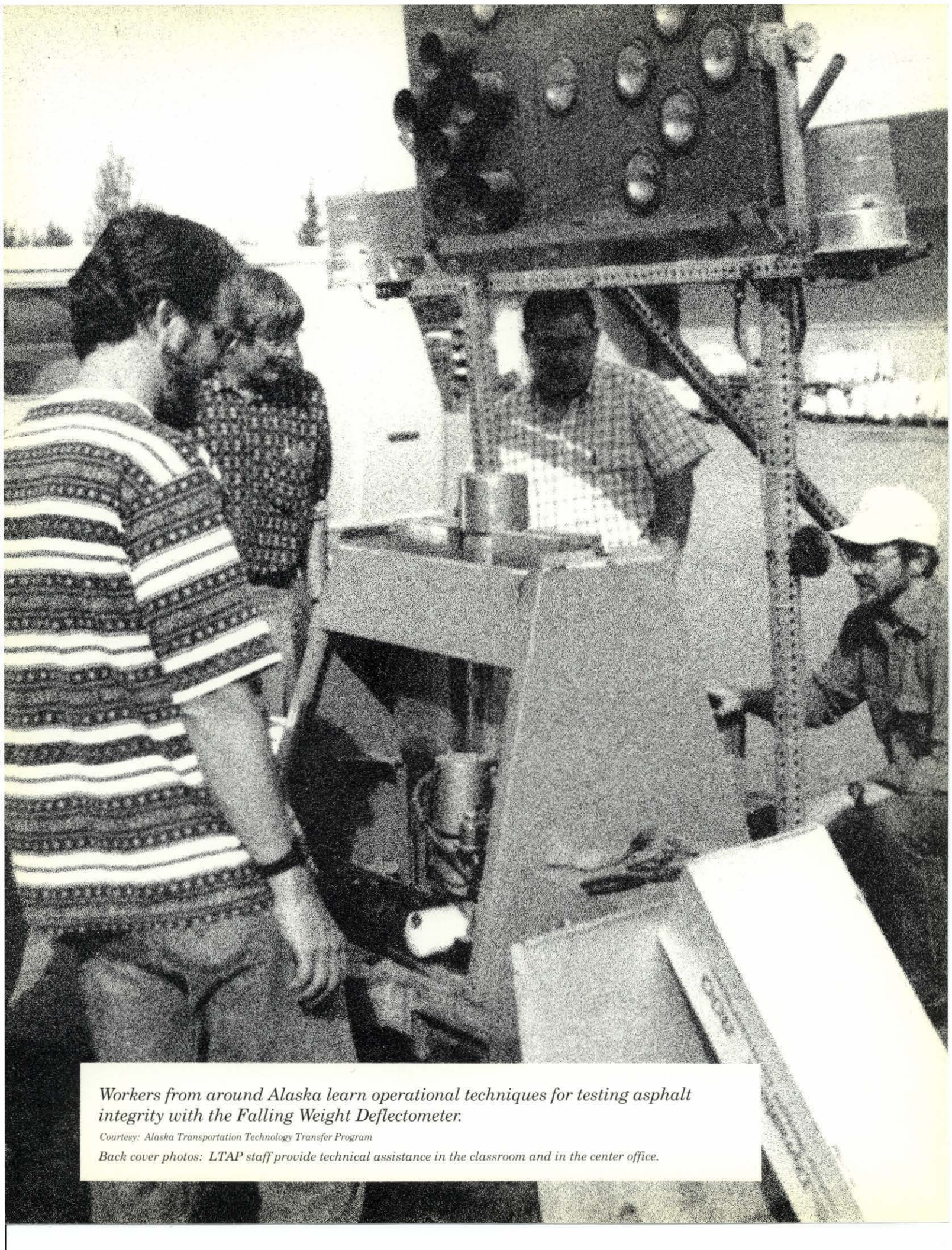
American Indian Tribal Government LTAP Centers

Indian Local Technical Assistance Programs
Montana State University
Local Technical Assistance Program
Department of Civil/Agricultural Engineering
Bozeman, Montana 59717-0390
(406) 994-6101

Technology Transfer Center for American Indian Tribal Governments in the Eastern U.S.
Michigan Technology University
Michigan Transportation T^2 Center
Civil and Environmental Engineering Department
1400 Townsend Drive
Houghton, Michigan 49931-1295
(906) 487-2562

Northwest Tribal Local Technical Assistance Program
Eastern Washington University
Department of Urban and Regional Planning
MS-50, Isle Hall
Cheney, Washington 99004
(509) 359-7948

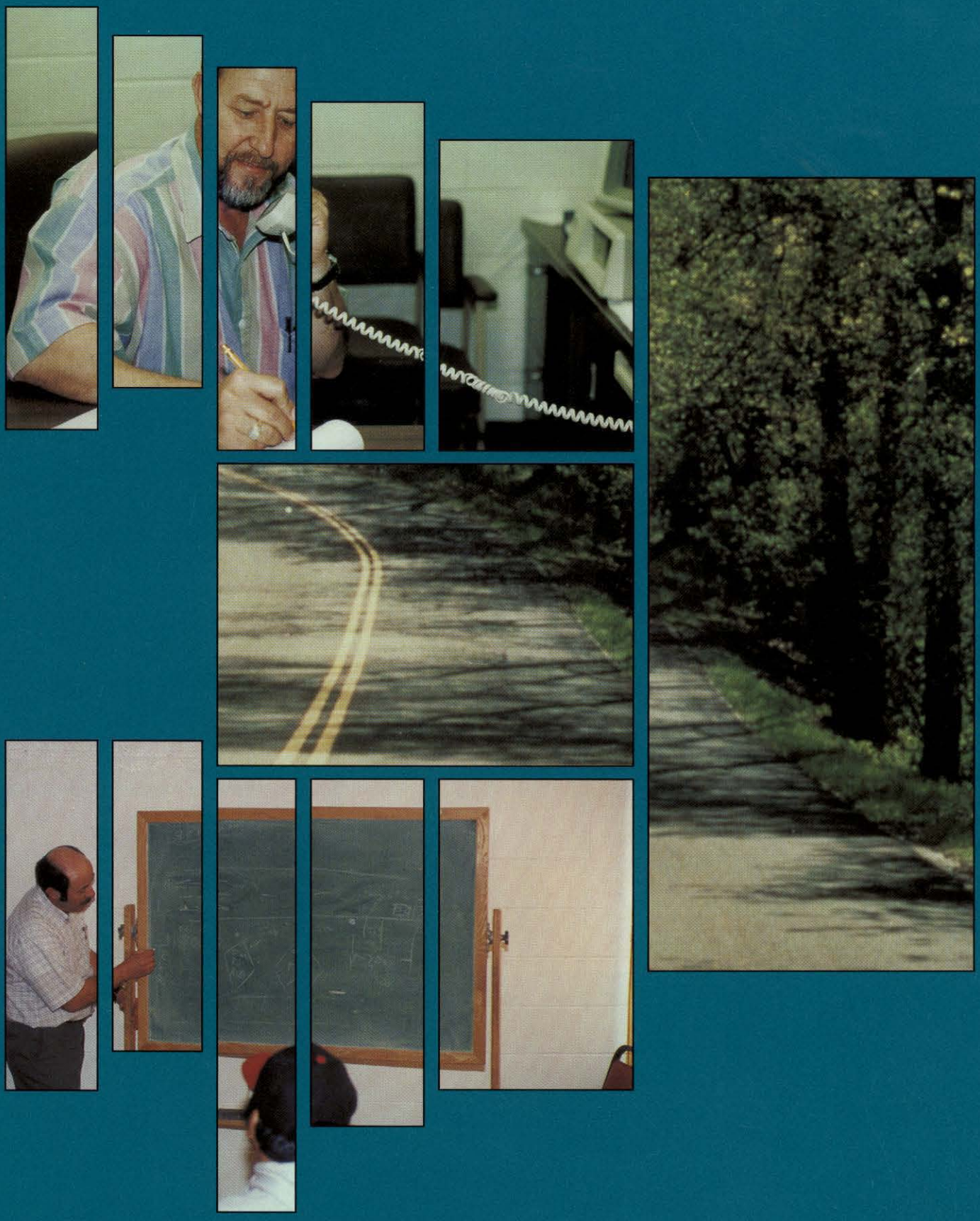
Technology Transfer and Training (T^3) Program for Native Americans
Colorado State University
Engineering Research Center, Room A113
Fort Collins, Colorado 80523
(800) 262-ROAD



Workers from around Alaska learn operational techniques for testing asphalt integrity with the Falling Weight Deflectometer.

Courtesy: Alaska Transportation Technology Transfer Program

Back cover photos: LTAP staff provide technical assistance in the classroom and in the center office.



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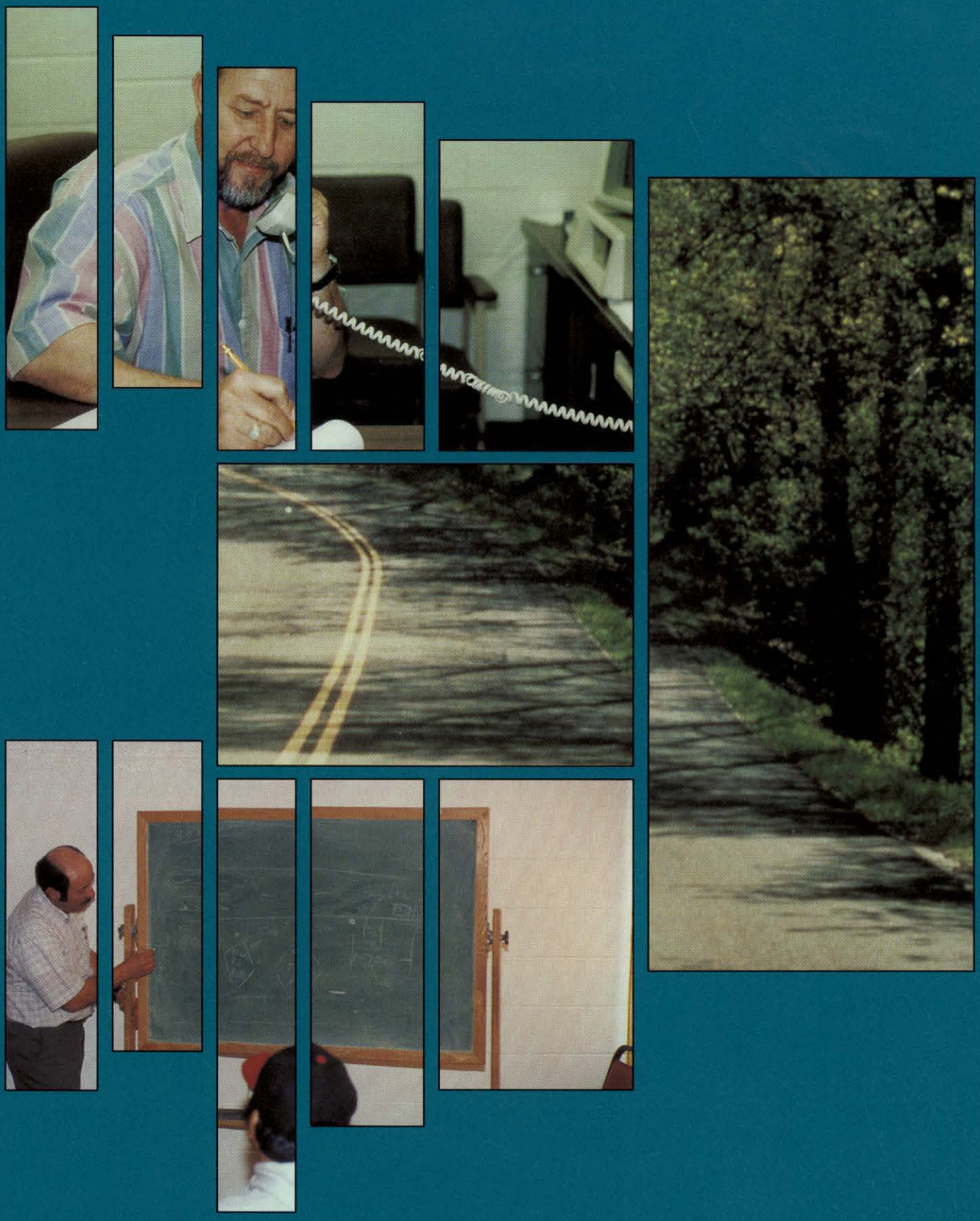

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