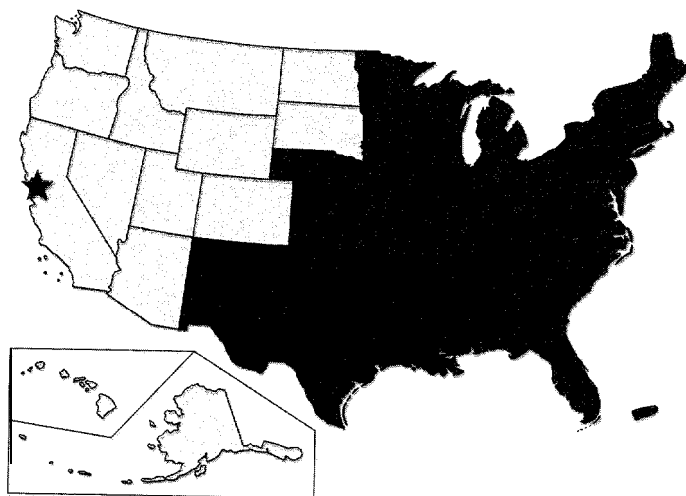


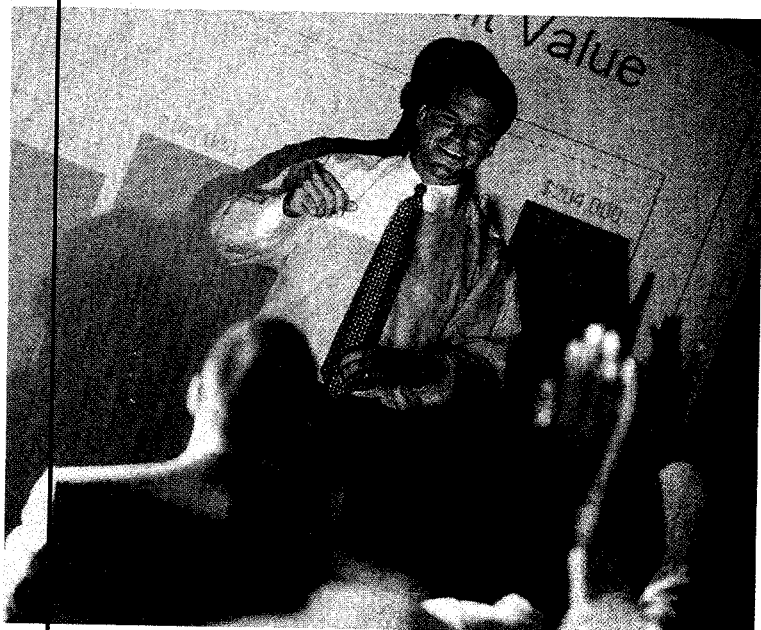


U.S. Department
of Transportation
**Federal Highway
Administration**



The Power of People: The Resource Center Report

FY 2000



*Bringing tomorrow's solutions to today's
transportation needs – that's what the
Resource Centers are all about.*

The Power of People: The Resource Center Report

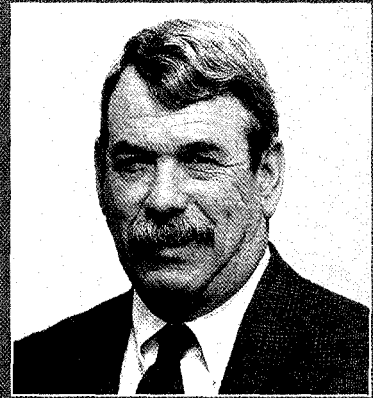
FY 2000

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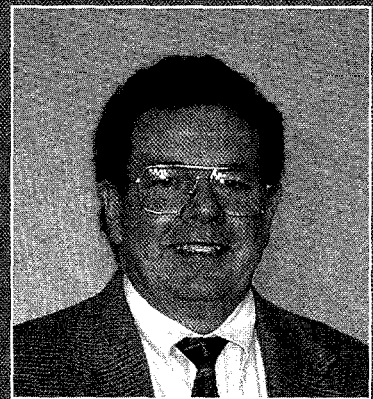
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RESOURCE CENTER MANAGERS

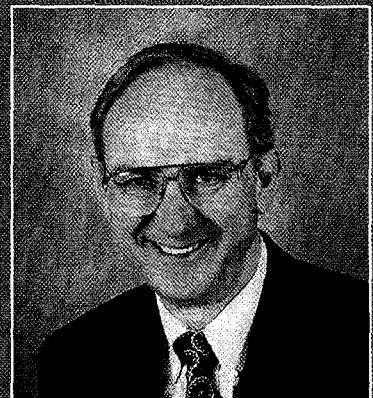
Robert M. Callan
EASTERN



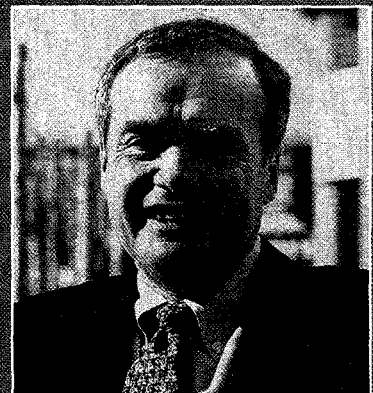
Bruce E. Matzke
MIDWESTERN



James K. Erickson
SOUTHERN



Gary N. Hamby
WESTERN



 *...bringing tomorrow's solutions to today's transportation needs.*

Welcome!

On behalf of the many specialists in the Federal Highway Administration Resource Centers, we are pleased to present the first annual Resource Center corporate report, entitled ***The Power of People: The Resource Center Report FY 2000***. In a little more than two years, the Resource Centers have evolved from a concept on paper to fully integrated and operating organizational units. We have a new mission and operating philosophy based on providing program and technical assistance to our many customers both inside the Federal Highway Administration and throughout the transportation community. This past year, in particular, has been one of great change and much progress. With the staffing of the four Operations Manager positions — and a change in title of these positions to Resource Center Manager — the leadership role in the Centers has been clarified and strengthened. A majority of the varied technical staff positions in the Centers has also been staffed.

But our work is not done — we are still evolving every day. In order to more effectively accommodate customer's needs, we are moving toward operating the four Centers as one, seamless, corporate entity without geographic boundaries. That means we have established a common organizational structure centered around three core business units: ***Infrastructure, Highway Safety & Operations, and Planning & Environment***, supported by ***Service Teams in civil rights, finance, administrative functions, and corporate management***. In addition, we are creating one general Resource Center web site that provides a direct link to the four individual offices; we are standardizing many of our processes that impact our customers; and we will issue a unified corporate report, which details for our clientele what we have accomplished over the past year.

In the pages that follow, we highlight our accomplishments through brief success stories in each of our core business areas plus our other service business areas. Because our success and the quality of our services are wholly dependent upon our technical expertise and knowledge, we have included a discussion of our corporate assets — our people. In this section, we highlight the collective academic experience, professional and personnel recognition, and training experience we bring to our customers. We think you will agree our people have impressive credentials. Lastly, the report reflects on what you, the customers, are telling us about our services. Through the use of internet-based customer surveys and other feedback, we illustrate how our customers have evaluated us — how we meet their needs, add value, and improve their products and processes. While the results are very encouraging and reflect very positively on the quality of our employees' efforts, we will not rest on our laurels. We still have work to do!

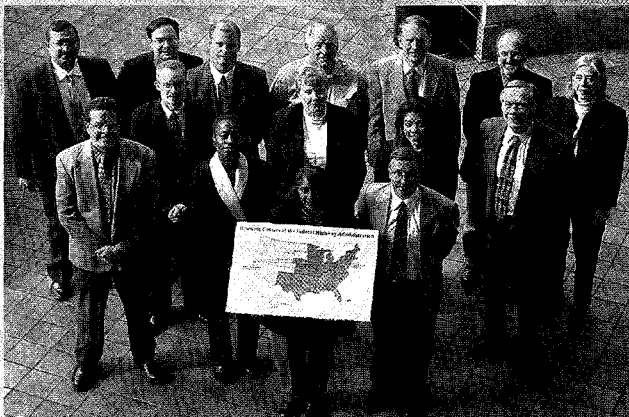
The Resource Centers are serving as the central contact points — the hubs — for technical assistance and service. Equipped with highly-skilled specialists, the Resource Centers are available to assist the FHWA's Division Offices and other customers and partners. In addition to technical and program assistance, our specialists develop and present training, lead technology transfer activities, and assist with, as well as lead, intermodal and interagency coordination.

Although ***The Power of People*** report celebrates our accomplishments, we cannot be successful without an agency culture that supports the concept of the Resource Centers. As evidenced by our successes and the feedback that we have received, we have that support. It continues to be our mission and challenge to deliver the best possible services to our customers. As expressed in our mission, we commit ourselves to

“... bringing tomorrow's solutions to today's transportation needs.”



EASTERN RESOURCE CENTER TEAM
Baltimore, Maryland



MIDWEST RESOURCE CENTER TEAM
Olympia Fields, Illinois



SOUTHERN RESOURCE CENTER TEAM
Atlanta, Georgia



WESTERN RESOURCE CENTER TEAM
San Francisco, California

...bringing tomorrow's solutions to today's transportation needs.

Executive Summary

The Federal Highway Administration's (FHWA) Resource Centers had a terrific year, significantly advancing the FHWA organizational transition begun two years ago. That progress demonstrates a critical shift in corporate thinking and culture.

A concept is born

Spurred by TEA-21's emphasis on a customer-focused, program-delivery framework, the four Resource Centers were established in Atlanta, Baltimore, Olympia Fields (Chicago), and San Francisco. These areas were chosen because they are nationally-recognized transportation hubs. Locating services in these geographic areas brought the expertise closer to the customer, allowing experts greater capability and accessibility to assist and serve newly empowered Division Offices.

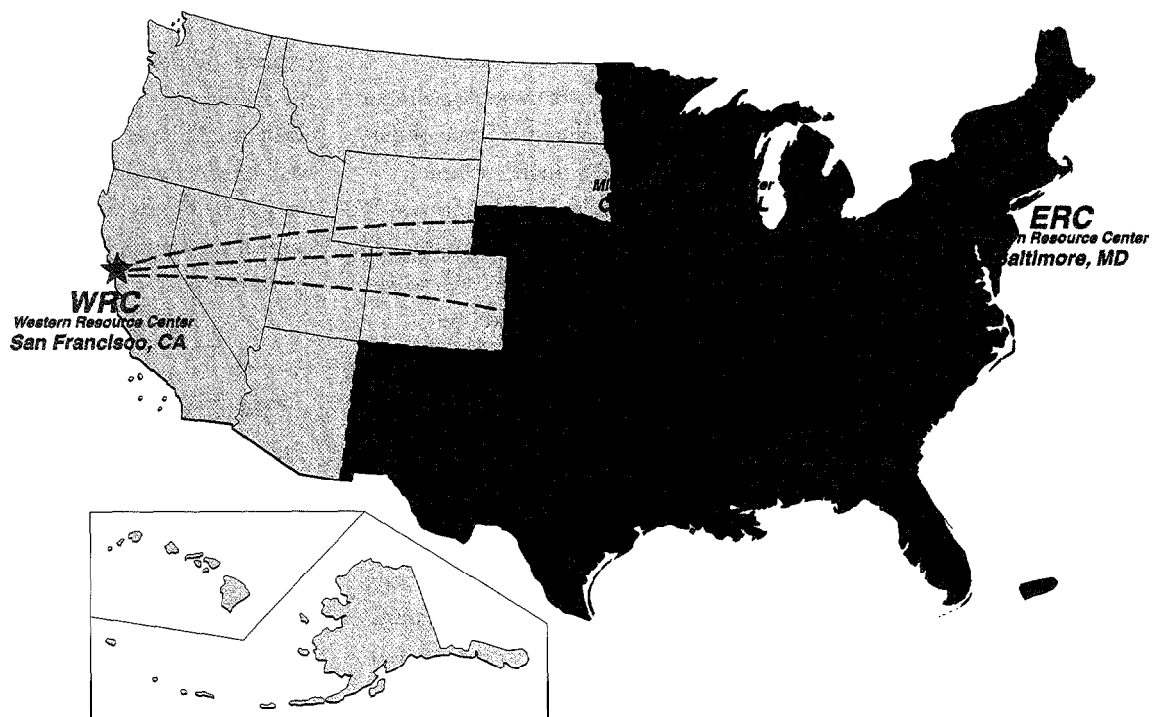
Matching solutions with problems

Bringing tomorrow's solutions to today's transportation needs — that's what the Resource Centers are all about. The Centers provide technical support, program assistance, training, and technology delivery to a diverse set of customers across the country. These customers include FHWA's Division Offices, State Departments of Transportation, Metropolitan Planning Organizations, and other transportation partners.

The Centers offer teams of specialists skilled in problem-solving, knowledge sharing, and technology deployment. These specialists are the Centers' main assets. The combined experience and expertise of Resource Center specialists is impressive. They are organized

around three main business areas — *Infrastructure, Safety & Operations, and Planning & Environment*. In addition, service teams composed of specialists in civil rights, finance, information management, information analysis, marketing and media, strategic planning and quality initiatives, procurement and acquisition, and administrative services provide support and expertise to the Centers' business units and its customers. These teams are directly aligned with FHWA's Core Business Units (CBUs) and Service Business Units (SBUs). This alignment enhances our delivery of services and furthers FHWA's Strategic Goals of improved *Safety, Mobility, Productivity, Human & Natural Environment, and National Security*.

Resource Centers of the Federal Highway Administration



A nationwide network

By locating technical specialists in four geographical areas of the country, a wide range of expertise and assistance is readily available to all FHWA offices and our external customers. That expertise translates into the finest in customer service — from Resource Center Manager to support staff — everyone is dedicated and committed to service. Although we are dispersed over thousands of miles, our goals keep us connected. Whether our employees are in the East, Midwest, South, or West, our customers share common interests and needs. Resource Center work does not know geographic boundaries; we are a seamless organization with one united mission. We support and learn from one another and strengthen the Resource Center concept as a whole by doing so. We are committed to hiring the best and the brightest, and to continually invest in their professional development.

Resources

In FY 2000, the Resource Centers transformed their allocated budget resources into delivering services in support of our four key business areas — technical assistance, training, technology deployment, and interagency coordination. In doing so, it moved us closer to our goal of delivering outstanding, value-added services to our customers in order to help them achieve their transportation goals. One hundred forty-five employees staff the Centers, putting us at about 85 percent of our ceiling. Those 145 people passed on an astounding amount of knowledge in the past year.

Each Resource Center's geographic customer base may cover 10 to 15 Division Offices, an equal number of

State DOT's, a large number of metropolitan planning organizations, other Federal agencies, local transportation agencies, and consultants. In addition, many services are provided on a nationwide scale.

A typical Resource Center conducts more than 2400 student-hours of training, delivers over 100 technology packages, fulfills approximately 1700 requests for assistance, and participates in more than 40 major coordination initiatives.

Our strategy for the past year was simple — fill our vacancies with the best talent, give them the best training, offer the best variety of solutions to our customers, and deliver the best services. After all, striving to be the best is what we're all about.

Successes

In this report, you'll read about many Resource Center successes. We measure our productivity and our successes, by our ability to increase services or maximize product deliverables without adding substantial costs. Some of our successes helped a single customer; while others met the needs of many. We partnered with community groups and international organizations. We strive to match our expertise with the problems of our customers, and develop new ways to solve old problems. We have also created virtual classrooms, bringing our training efforts to the worldwide web. We have created solutions that have yielded more than \$35 million in potential transportation savings. We have held safety summits and winter maintenance expos that showcased state-of-the practice

initiatives and technology advancements to a broad spectrum of customers. We took the lead on environmental issues, and have helped save lives by making the transportation infrastructure safer. To increase our accessibility to customers, we developed a quick web-based reference guide to find expertise. These are just a few examples of the good work that goes on every day in the Centers.

The Future

The 21st Century will belong to those who can maximize the potential knowledge locked within the vast and often confusing barrage of information that characterizes our age. We are constantly looking forward, identifying new business areas and niches we can fill. We achieve the greatest results when we compare identified knowledge gaps and customer requirements, and capitalize on new opportunities to deliver assistance. As our cities and highways become more crowded, new issues will arise which challenge all of us in the transportation community. Our creative solutions will involve both specialized expertise and technological advances. This combination makes us well-prepared to deliver the kind of services necessary for our customers to combat the transportation challenges of the future.

"We're a young organization with many things to do — let's not dilute our efforts — we must work on providing outstanding customer service first."

Gay Hamby, WRC Manager

...bringing tomorrow's solutions to today's transportation needs.

Managing Our Success

The Power
of People

145

*The Resource Centers are
145 people strong.*

A powerful number = powerful results.

The Power of People

Our Corporate Assets

Resource Center experts come from a myriad of educational backgrounds and diverse experiences, with innumerable skills, talents, and other assets. Take a look at the following snapshot and see just how far our expertise reaches.

Did you know?

	B.A.	B.S.	BLA*	Master's	PhD	P.E.**	Certified Trainer
ERC TOTALS	10	25		17	1	8	4
MRC TOTALS	5	17		12	1	10	4
SRG TOTALS	9	27	1	22	4	15	2
WRC TOTALS	6	19		12	2	9	1
GRAND TOTALS	30	88	1	63	8	42	11

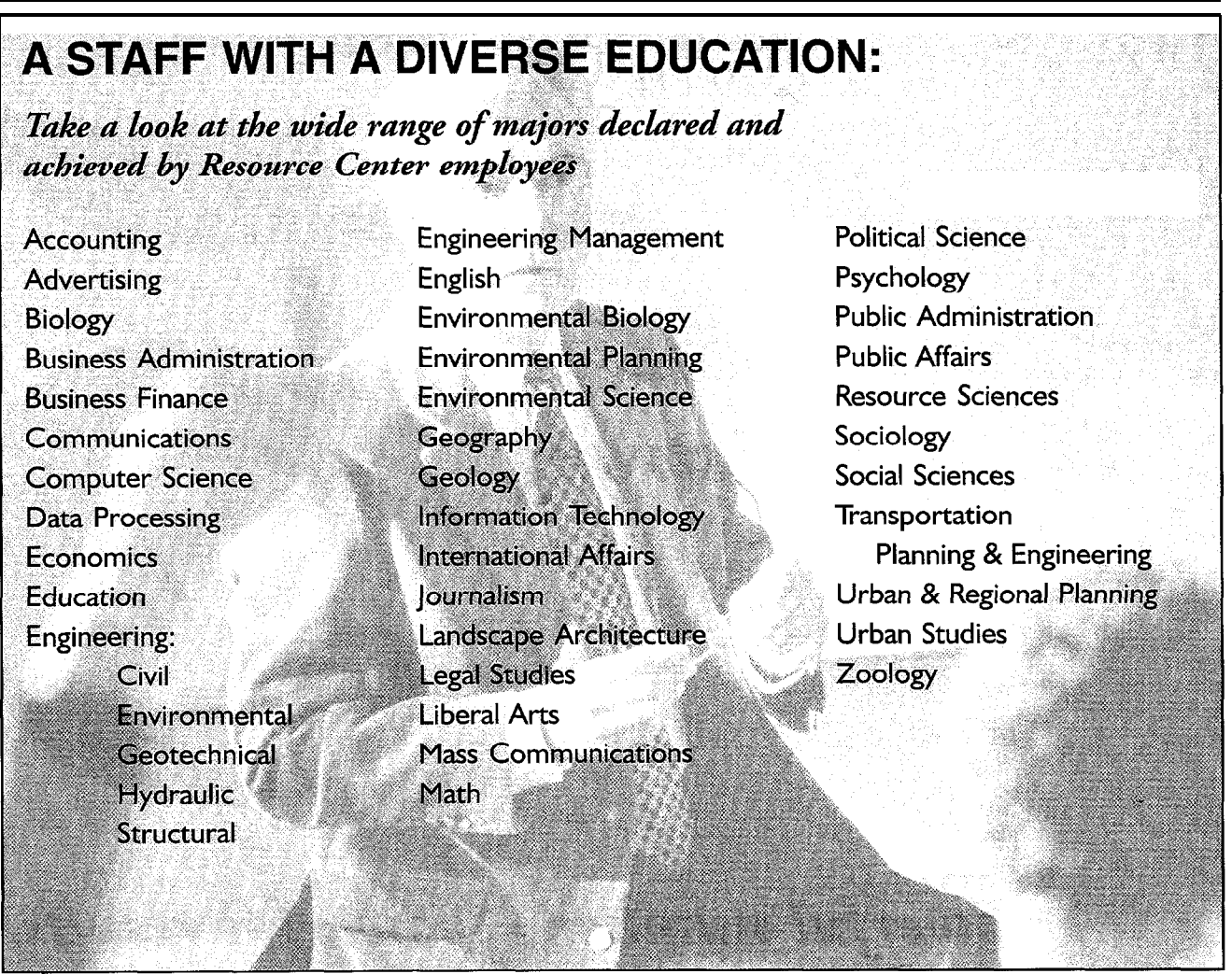
* Bachelor's in Landscape Architecture

** Professional Engineer License

Other Certifications Held: Certified Public Accountants, Certified Government Financial Managers

A STAFF WITH A DIVERSE EDUCATION:

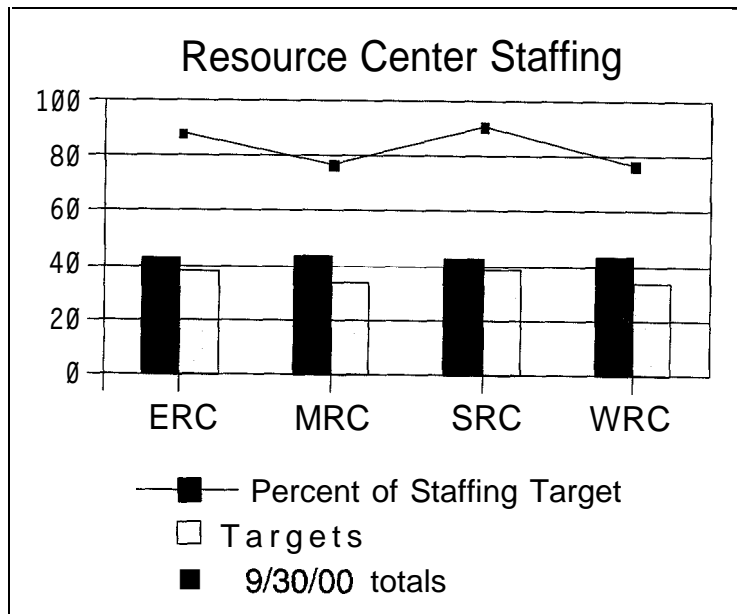
Take a look at the wide range of majors declared and achieved by Resource Center employees



Accounting	Engineering Management	Political Science
Advertising	English	Psychology
Biology	Environmental Biology	Public Administration
Business Administration	Environmental Planning	Public Affairs
Business Finance	Environmental Science	Resource Sciences
Communications	Geography	Sociology
Computer Science	Geology	Social Sciences
Data Processing	Information Technology	Transportation
Economics	International Affairs	Planning & Engineering
Education	Journalism	Urban & Regional Planning
Engineering:	Landscape Architecture	Urban Studies
Civil	Legal Studies	Zoology
Environmental	Liberal Arts	
Geotechnical	Mass Communications	
Hydraulic	Math	
Structural		

...bringing tomorrow's solutions to today's transportation needs.

And the Resource Centers are not just relying on the talents their employees bring to the job – they’re developing them even more. Training budgets for Resource Center staff last year topped \$143,900 and are even stronger for 2001. Our staffers are encouraged to be on a continuous learning track and to share knowledge among themselves. In an ever-changing field like transportation, keeping up with the knowledge curve is essential. Our experts are empowered to seek out new information and help pass it on to their customers



September 30, 2000 Resource Center employment represented 11.25 percent of field employment, and 5.33 percent of FHWA employment.

FHWA Expertise Locator

Expertise in FHWA is a partnership of FHWA offices across the country (Headquarters, Resource Centers, and Divisions). The FHWA Resource Centers serve as a primary entry point into this wealth of expertise. These centers provide expert technical and program assistance, training, and

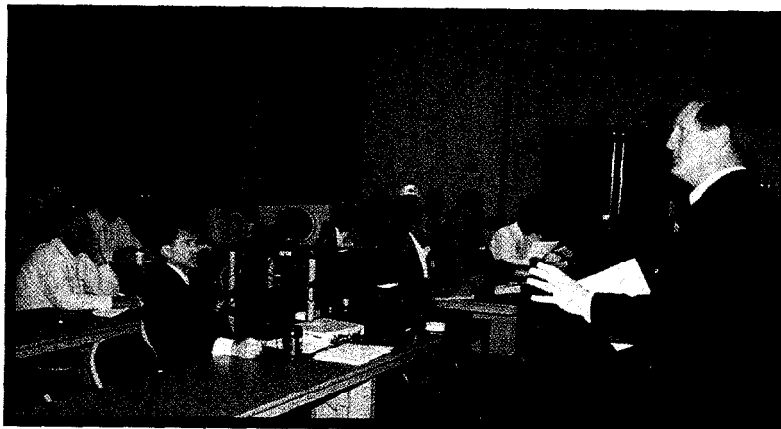
technology delivery to FHWA's Divisions, State DOT's, Metropolitan Planning Organizations and other customers. These services help carry out FHWA's mission of providing leadership, expertise, resources and information in cooperation with our partners to enhance the country's

economic vitality, quality of life and environment. Specialists located in the four Resource Centers and other select FHWA offices create a network that is available to serve your needs for technical knowledge, customer advice, and training assistance.

Visit the FHWA Expertise Locator at:
<http://www-fhwa1.ornl.gov>

“Knowledge - sharing and applying it - is our primary product.”

Jim Erickson, SRC Manager



The Power of People *Awards*

"We are constantly recruiting the best new people for Resource Center staffs. We may be running out of office space, but I'd rather fill our space with brilliant minds than file cabinets any day."

Bob Callan - ERC Manager

ERC

U.S. DOT Secretary's Find the Good & Praise It:

For Marketing Assistance for National Transportation Week

For Media & Public Affairs Assistance on Liveable Community Forum

U.S. DOT Secretary's Award Partnering for Excellence Team Award:

Cargo Tank Technical Assistance Group

FHWA Administrator's Strive for Excellence Customer Service Award:

Woodrow Wilson Bridge Environmental Management Team

MRC

FHWA Engineering Excellence Top 10 Award

FHWA Administrator's Strive for Excellence:

For Outstanding Customer Service by a Resource Center

FHWA Administrator's Award for Superior Achievement

One - DOT Certificate of Appreciation

Human Resources Management Committee Award

SRC

U.S. DOT Secretary's Find the Good & Praise It:

For launching the Transportation and Community and System Preservation Program

For advancing Garrett A. Morgan Technology and Transportation Futures Program

For "leadership and dedication to civil rights programs"

U.S. DOT Secretary's Gold Medal:

Garrett A. Morgan Technology and Transportation Futures Program (3 awards)

U.S. DOT Secretary's Award for Meritorious Achievement:

For continuous leadership, resolute support, and outstanding contributions for creating a diverse DOT workforce for the 21st century

U.S. DOD Commander's Award of Excellence

The Nature Conservancy of Georgia Award:

For Volunteer of the Year (2000)

FHWA Administrator's Superior Achievement:

For outstanding team spirit, customer service, and leadership

ONE DOT Certificate of Appreciation:

Outstanding service as Chairman of Intermodal Planning Advisory Group

WRC

U.S. DOT Secretary's Award for Excellence:

For outstanding teamwork in accomplishing the goals of the Resource Center

FHWA Administrator's Award for Superior Achievement:

For innovative finance service to WRC customers

The Power of People *Knowledge Sharing*

Scan the list below for courses taught by Resource Center experts. ***DO you recognize any subjects you'd like to know more about?***

Infrastructure

- Corrosion Evaluation of MSE Walls
- Culvert Design
- Drilled Shafts
- Engineering Concepts for Bridge Inspectors
- FEMA Coordination Regarding Highway Encroachment on Flood Plains
- Introduction to Highway Hydraulics
- NHI Geotechnical Modules I
- NHI Practical Highway Hydrology
- HYDRAIN
 - Hiperpav Workshop
- Life-Cycle Cost Analysis in Pavement Design
- Slope Maintenance and Slide Restoration
- Soil Nail Wall Design & Construction
- Pavement Subsurface Drainage Design
- Prestressed Concrete Beam Design Workshop/ Load and Resistance Factor Design
- Safety Inspection of In-Service Bridges
- Soils and Foundations Workshop
 - Stream Stability and Scour at Highway Bridges
 - Urban Drainage Design

Highway Safety & Operations

- NHI "AASHTO Roadside Design Standards Course"
- Guardrail Installer Training
- Human Factors in Transportation Engineering
- ITS Awareness Seminar
 - ITS and the Planning Process
- Introduction to National ITS Architecture and Interim Guidance on Conformity
- Deploying Integrated ITS – Metropolitan
 - NHI "ITS Software Acquisition Course"
 - NHTSA Instructor Facilitator Training
- NHTSA Safe Communities Training
- Older Driver Highway Design Handbook Workshop

"It is the goal of the Resource Centers to balance professional development with customer service."

Bruce Matzke, MRC Manager

Planning & Environment

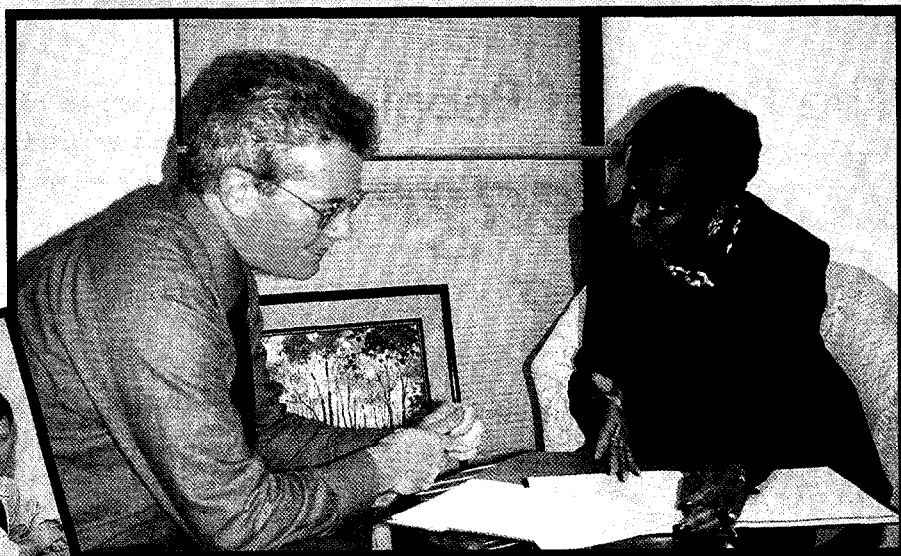
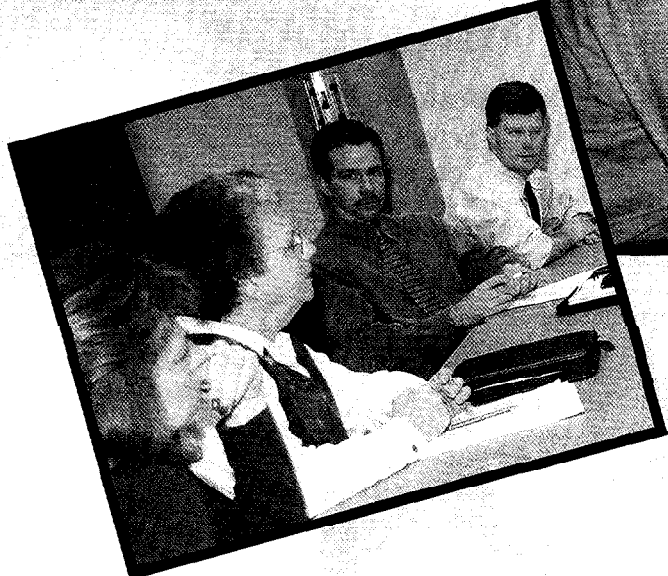
- Air Quality Analysis & Workshops
 - Cultural Resource Management Workshop
 - Introduction to Emission Factor and Microscale Dispersion Modeling
 - Endangered Species Act, Section 7
 - Environmental Justice Issues for MPOs
- Environmental Training Center
 - ERC Transportation/Air Quality Workshop
 - ERC Overview of Travel Demand Forecasting
- Functional Assessment of Wetlands
- NHI Applications of Geographic Information Systems for Transportation (GIS-T)
- How MOBILE 6 Impacts Design & Construction
- Mobile Source Emissions Factor Modeling
- NEPA Documentation
- NEPA and Transportation Decision-making
 - Pollution Dispersion Models
- Project Development in NEPA
 - Public Involvement in NEPA and Transportation Decision-making
- NHI Public Involvement Course
 - Title VI Environmental Justice Workshop

Other Service Areas

- Continuous Process Improvement
 - Contract Compliance
 - Disadvantaged Business Enterprise Program
 - Diversity in the Workplace
 - Equal Employment Opportunity
 - On the Road to Equality: Women in Highway Construction
 - Title VI/Environmental Justice
 - Informal Facilitation
- Malcolm Baldrige Quality Initiatives Workshop
 - Branding & Marketing
 - Media Training
 - Performance Measurement
- Sexual Harassment in the Workplace

If you see a subject area you would like additional information about or you are interested in discussing training opportunities, please contact the Resource Center nearest you.

Highlights



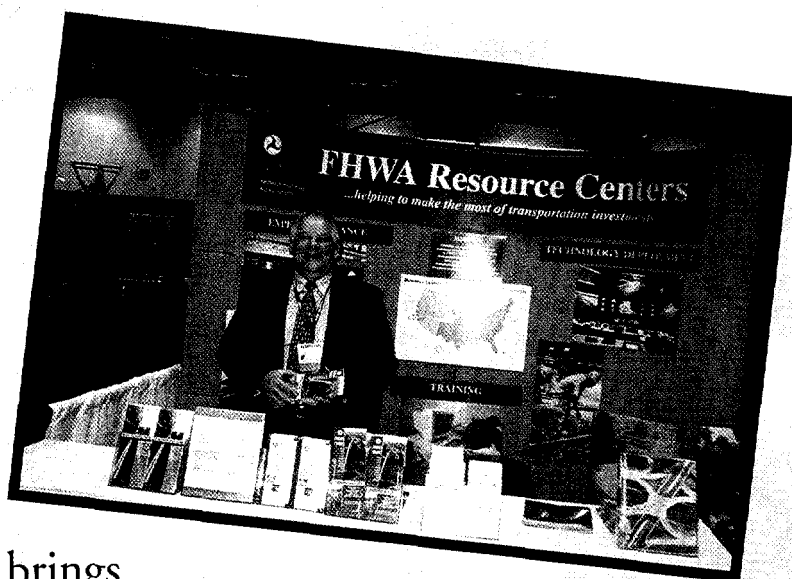
Multistate Streamlining MOU enhances cooperation of agencies dealing with early environmental coordination, environmental protection, and projects.

Pavement Preservation and Smoothness Report tells Georgia's secret of successful roads.

"... One of the main sessions in this workshop was 'An overview of the TEA-21 legislation and the impact it will have on wetland regulators and this regulated community. ... [your team] provided an excellent presentation, which organizers found to be exactly the information they were looking for. This is an excellent example of how the Resource' Centers and Headquarters office are providing the field with technical and policy type assistance.'"

Donald J. West, Division Administrator, Connecticut, in reference to U.S. EPA/New England Interstate Water Pollution Control Commission workshop

US - Korea Highway Technology Workshop bridges the miles between the continents.



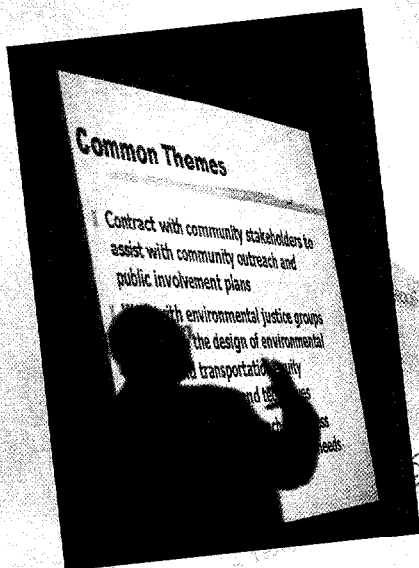
Aligning Strategic Plans brings all transportation agencies onto a level playing field.

The **virtual classroom**
becomes a staple for training courses.

Resources are now at your fingertips with
the **Resource Center Expertise Locator**.

"Your technical expertise with the aquatic and terrestrial ecosystems, knowledge of the permit processes plus your credibility with the regulatory and resource agencies was a real advantage for the project."

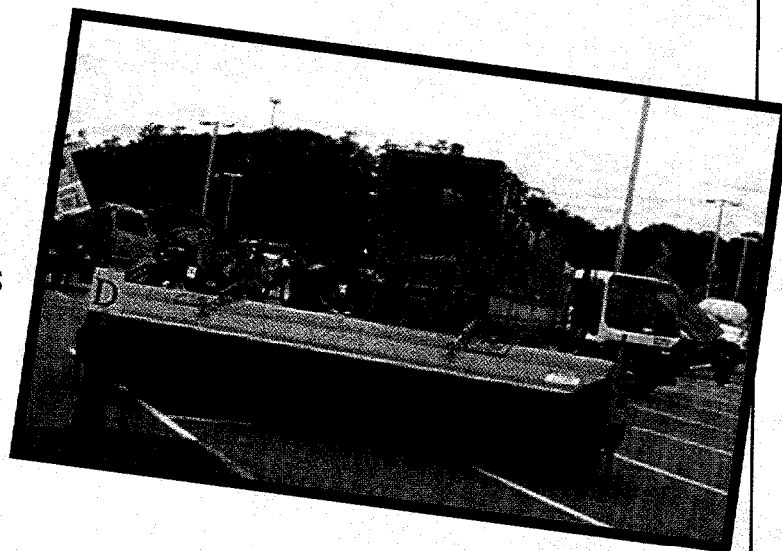
John Gerner, Woodrow Wilson Bridge Project Manager



Southern Safety Summit
tackles nation's highest
fatality rates.

Customer Surveys
track our progress.

Sixteen hundred people learn
how to deal with wintry roads
at the **Eastern Winter Road
Maintenance Symposium
& Equipment Expo.**



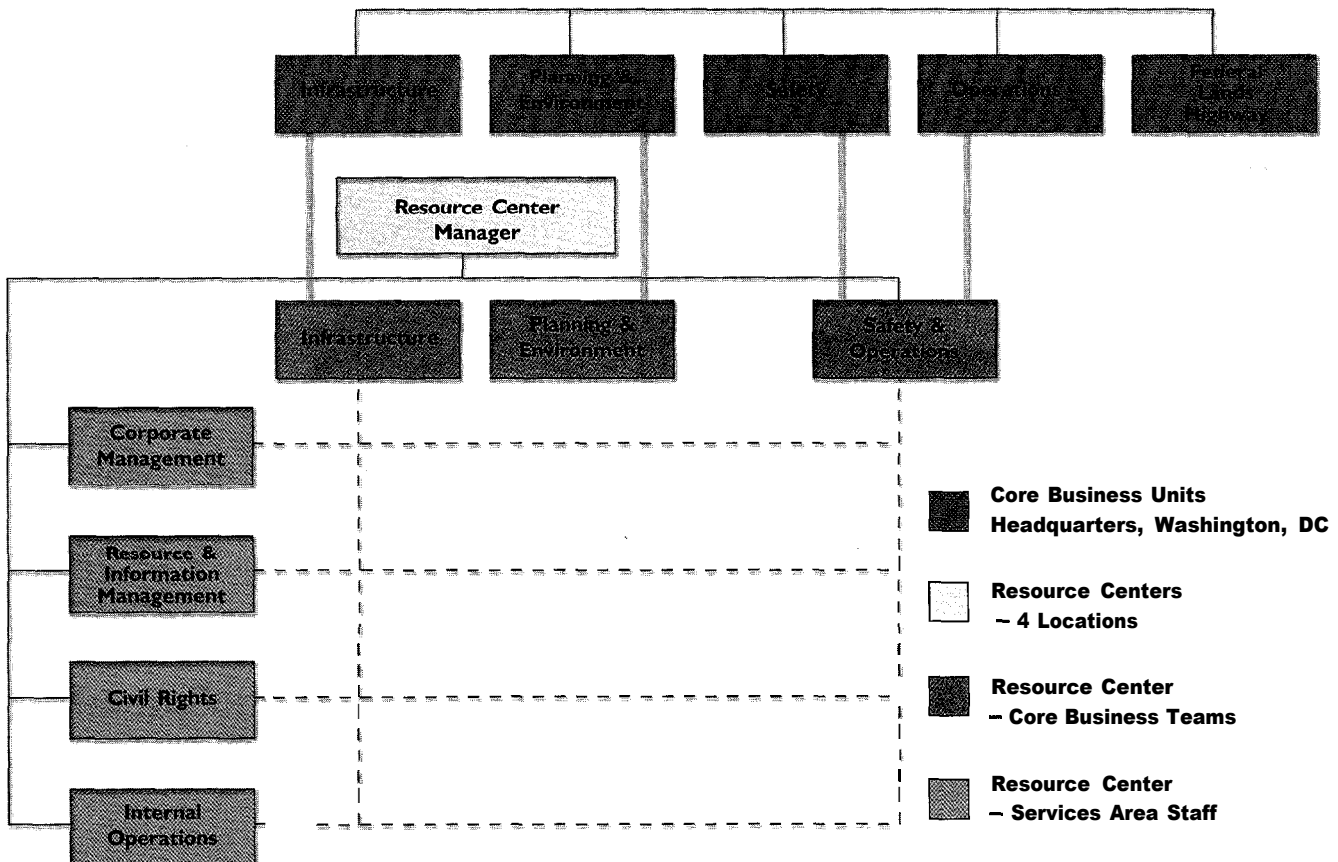
Making the Right Link

Linking our efforts and initiatives to the FHWA Core Business Units assures that our work is in line with the higher

goals of FHWA and the Department of Transportation. These Core Business Units (CBUs) – in addition to the

FHWA Service Business Units (SBUs) – are reflected in the Resource Center structure.

Organization Chart



While there are some differences in the organizational structure within each Resource Center, the flexibility provided strengthens our ability to meet the mission of the Resource Centers and serve our customers.



Infrastructure

The Resource Center Infrastructure teams are responsible for providing training, expert technical and program consultation and technology transfer assistance on a variety of topics.

In support of FHWA's Strategic Goal for improving Mobility, the Resource Centers provide technical assistance and leadership enabling our customers to reduce the percentage of deficient bridges, and improve the condition of our Nation's pavements. We focused resources on sharing innovative bridge and pavement research that supports the deployment of advanced high-performance materials and techniques to improve bridge and pavement performance. The Resource Centers also work toward the Agency's National Security Goal by promoting the improvement of the condition, capacity and operation of the highway system to support defense mobilization.

The Infrastructure Team focuses on 10 key areas.

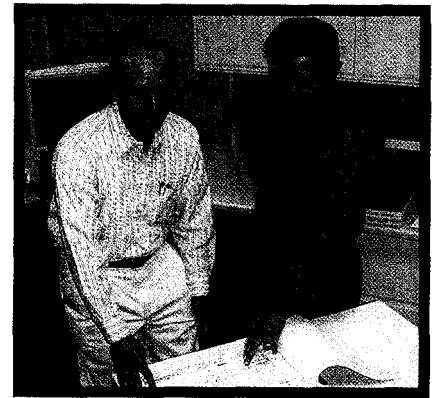
In Bridge Management, the ERC Bridge Engineer took a lead role in organizing a highly-acclaimed "Bridge Technology Workshop," which was attended by ERC Division Bridge Engineers and their counterparts from State DOTs in the eastern United States. The workshop focused on the HERMES deck evaluation system, sign structure inspection, PONTIS 2000, steel truss inspection, load posting local bridges, and determining unknown foundations.

The ERC team was also recognized by Rhode Island's highway staff for providing technical assistance with the implementation of a bridge painting program within the State. ERC staff quickly identified longstanding cost and health issues associated with hazardous lead-based paint removal from steel bridges. They also discussed

innovative alternative paints and galvanizing, and state-of the-art coating such as metalizing. The ERC Bridge Management Engineer was also actively involved with national associations such as the Steel Structures Painting Council and the Structural Committee for Economic Fabrication's subcommittee on steel coatings, and is a recognized agency spokesperson on this field.

The WRC's Western Bridge Engineers Seminar was held in October 1999 in Seattle, Washington with nearly 800 participants. Each seminar is self-funding and FHWA provides scholarships to State DOTs to permit their employees to attend. Seminars provide an opportunity to deploy state-of-the-practice bridge technologies and lessons learned to States, local agencies and consultants. In partnership with the Department of Defense and State and local highway transportation agencies, the WRC's bridge engineers helped develop a tracking system for the Strategic Highway Corridor Network (STRAHNET), to track the condition of STRAHNET connectors and help improve deficient roads, bridges, and defense mobility operations. It also ensures the execution of the Defense Access Road Program.

Dealing with Complex Structures, the ERC Infrastructure Team provided alternative solutions to Puerto Rico highway officials to help protect a historic bridge during a highway tunnel construction project at the San Antonio Channel in San Juan. By underpinning the bridge while the tunnel construction project got



underway, consultants would not harm the integrity and character of the historic structure. The previous proposal involved cutting the existing service into sections, storing the elements and reassembling them later. Demolition/reconstruction costs and time delays will now be avoided.

WRC Bridge Engineers provided assistance to the Washington DOT and FHWA Washington Division Office in the review of project design criteria and specifications for the Tacoma Narrows Suspension Bridge. In addition, they provided the FHWA California Division Office with technical assistance in the review of design and other project documents for the San Francisco/Oakland Bay Bridge. The team also worked with Colorado DOT, FHWA Colorado Division Office and Headquarters personnel during early project development and review of project documents on I-25.

Studies following the 1989 Loma Prieta Earthquake showed that the Golden Gate Bridge is vulnerable to extensive damage in the event of a major earthquake. WRC Bridge



Engineers, along with Caltrans personnel, served in a review and advisory capacity to the Golden Gate Bridge Highway and Transportation District in the analysis and design of the seismic retrofit for the bridge. A contract has been let for the retrofitting work which will be conducted in three phases.

In **Geotechnical Engineering**, the ERC's staff has been very busy providing training and reviewing foundation designs for many structures. ERC "geotechs" provided training and technical assistance in mechanically stabilized earth walls, soil-nailed walls, and reinforced soil slopes. They also played a major role in assembling a State DOT/consultant team to evaluate subsurface conditions for the design of the Woodrow Wilson Bridge and approach structure foundations. This effort has led to millions of dollars in savings. In addition, the ERC provided significant input to the seismic evaluation of existing, major interstate concrete arch structures.

"... timely 'cutting edge' geotechnical expertise ..."

NCDOT writes in reference to SRC advanced bridge design assistance.

High Performance Materials are the answer to many infrastructure problems. Recognizing the damaging effects of the marine environment in Puerto Rico on its bridges, the ERC assembled a team of FHWA, State DOT and University experts to present a 2-day advisory program to Puerto Rico Highway Authority staff. The presentation suggested the use of high performance materials and fiber reinforced polymer composites to provide a longer service life for the island's bridges. This activity enhanced mobility (by reducing the percentage of deficient bridges) and productivity (by reducing the life-cycle costs to construct bridges).

In another effort to promote high performance materials, WRC Bridge Engineers made presentations at the American Concrete Institute Conference

in Arizona and to the Montana DOT and FHWA Montana Division Office on the strength and durability benefits of High Performance Concrete (HPC). The WRC is currently working with Arizona, California, Hawaii, Montana, Oregon, and Washington to initiate projects incorporating HPC.

"The Tennessee DOT is very appreciative of the efforts of the SRC Hydraulics Engineer, and the FEMA representative who assisted in a workshop, saving TDOT nearly \$10,000 in training costs. The workshop facilitated the development of new relationships."

Thomas Everett, Bridge and Safety Manager, Tennessee Division

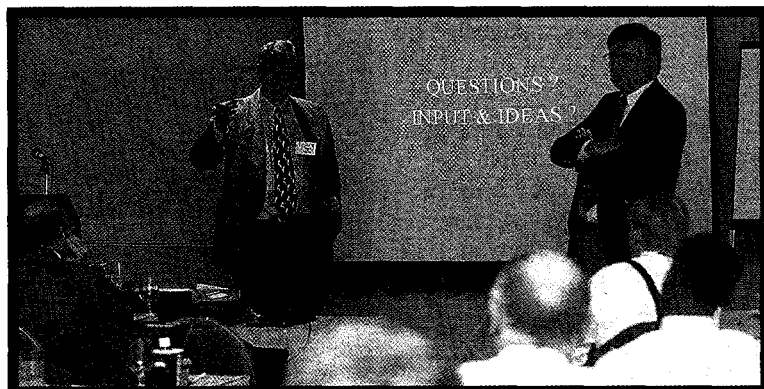
Hydraulics

Any Washington, D.C. area commuter knows about the Woodrow Wilson Bridge – and about the traffic delays that have become commonplace. Because of its strategic location, the bridge is the main commuter route between Maryland, D.C., and Virginia, and it carries 200,000 vehicles daily. Its age and the daily wear and tear have taken their toll, and the bridge is in dire need of repair and redesign. But how? Enter the ERC Hydraulic Engineer. He worked hand-in-hand with design teams in the redesign of the bridge. His research and expertise enabled him to devise a plan that would satisfy both aesthetic and safety concerns. The ERC input helped create a bridge plan that would keep the look of the old

bridge, while combating the natural deterioration of the bridge supports in the water.

The **Innovative Contracting** team helps find new solutions to save money and move projects ahead. SRC worked hard to give financial strategy briefings to Directors of Finance from Tennessee, South Carolina, Texas, and Puerto Rico to accelerate the completion of transportation projects – and it paid off! Puerto Rico and the three States now have the opportunity to receive more than \$1 billion in Federal credit assistance they would otherwise not have been aware of. The SRC also provided expertise on such complex financial vehicles as Grant Anticipation Revenue Vehicles, Transportation Infrastructure Finance and Innovation Act (TIFIA), State Infrastructure Banks, toll credits, and others.

Perhaps the country's most talked about highway project in the last decade was Boston's Central Artery project. Unfortunately, much of that talk centered around the continuing cost estimate escalation of the project. In an effort to learn from the lessons of the project, then-FHWA Administrator Wykle assembled a task force of finance experts and asked them to put together financial planning guidance, including a "good example" that could be used as a model throughout the country. The WRC was a key member of that task force, making significant contributions to the Financial Plan Guidance package, and finding the "good example." As a result of that effort, future major projects will realize considerable cost savings. Likewise, cost savings for highway projects are being realized through a new federal credit program. The TIFIA has



...bringing tomorrow's solutions to today's transportation needs.

been quite successful, largely through the efforts of the WRC's innovative finance specialist, who was heavily involved in setting up various aspects of the infant program, including outreach and information, solicitation and selection of project applications.

Terms like SUPERPAVE are well known thanks to the work of the Resource Centers' **Materials Team**. For example, the MRC coordinated efforts to discuss methods of evaluating dry cast modular blocks in modular block retaining systems; identified 20 research needs; and initiated a pooled-fund study solicitation of all 50 States to complete the work needed to address customer needs in this area. They also developed a comprehensive NHI bridge design core-curriculum to train bridge engineers on the implementation of state-of-the-practice design methodologies.

The ERC Infrastructure Team headed the steering committee of State Materials Engineers which developed the "33rd Annual Mid-Atlantic States Quality Assurance Workshop," which drew some 400 attendees. The committee selected a stellar cast of speakers for breakout sessions in the areas of metals, concrete, soils and aggregates, maintenance, and asphalt — to showcase the latest in materials technology. The highly successful workshop has been replicated in many other parts of the country.

The ERC and the SRC materials staffs have been busy providing Life Cycle Cost Analysis workshops in Alaska, Arizona, Maine, Mississippi, Oregon, Washington, and Hawaii — illustrating the "boundary-less" nature of the Resource Centers. In addition, SRC staff facilitated a Model Development Meeting in Kansas City, which was attended by members of the National Asphalt Pavement Association, the American Concrete Pavement Association, and pavement specialists from Ohio, Nevada, Wisconsin, and Texas. The SRC also made presentations at the National Transportation Conference in Louisiana and the Design-Build Institute of America's national conference in Salt Lake City, Utah.

Working with the western Division Offices and the State DOTs, the WRC Bridge Team organized a "Western States Advanced Composites Workshop." The workshop brought together GO State, Division and Headquarters personnel who are directly involved with advance composites for bridge applications. It provided a forum for exchange of information on projects, material and construction specifications, quality control/quality assurance practices and lessons learned.

"I didn't realize I would be using the SRC pavement team so much. You guys are doing a good job over there."

Maranda Hahn, Design and Operation Engineer, Mississippi Division Office

In **Pavement Management & Design**, the ERC pavement engineers worked with Divisions and States to coordinate and identify regional pavement management initiatives in the Mid-Atlantic region. This effort, and the resulting follow-up efforts, provided a significant knowledge sharing exchange. The SRC's training efforts have paid off — three States have already agreed to incorporate life cycle cost analysis into their pavement design processes.

Structural Design teams helped to evaluate major proposals and resolve complex technical problems. The SRC developed and executed "redesign foundation load testing" programs for North Carolina, resulting in significant cost savings and improved safety. Similar

geotechnical guidance has been delivered to Georgia; and Florida has received specific bridge foundation recommendations in support of the 7-span bridge on State Route 21 over the Santa Fe River.

Technology Transfer

The ERC Technology Deployment Engineer developed a system to implement FY 2000 Research Development & Technology funded activities in the ERC Divisions and States, soliciting the States for candidates, creating a team to rank and score and prioritize the projects, and then make the program allocations. This system may serve as a model for all the Resource Centers.

The MRC took the lead in developing the "3rd U.S./Korea Road Workshop," presenting technical topics in an informative and relevant manner, but also providing concise and context-appropriate answers to questions raised over the course of the stay in Korea.

"MRC played a vital role in assembling the U.S. delegation and developing the agenda for the workshop...and played an important part in making a significant contribution to an FHWA priority international activity."

King Gee remarked in reference to the U.S./Korea Road Workshop.



Highway Safety & Operations

Keeping in line with the U.S. Department of Transportation's longstanding number one goal — the Resource Centers made highway safety a top priority performance goal. Promotion of safety initiatives, conducting training, and providing technical assistance were all part of our campaign to save lives on the highway. All aspects of highway safety were addressed. In addition, the Centers support the Agency's performance goal to improve the operation of the highway systems and enhance mobility by using the Intelligent Transportation System (ITS) National Architecture Standards to increase integration of the transportation system.

Resource Center experts work in connection with their peers in National Highway Traffic Safety Administration, Federal Motor Carrier Safety Administration, Federal Railroad Administration and others to achieve safety goals. They help save lives by improving the way our highways operate and making them safer. The SRC's Southern Safety Summit in August was an impressive gathering of the top transportation safety officials from southern States, and national safety experts. Never before had this regional safety problem been discussed in one forum by such a high-ranking

transportation group. The MRC Safety Team took the lead in international efforts this year, with their U.S.-Korea Highway Technology Workshop, and their involvement in the International Symposium on Geometric Design.

Highway Safety & Operations is more than you think.

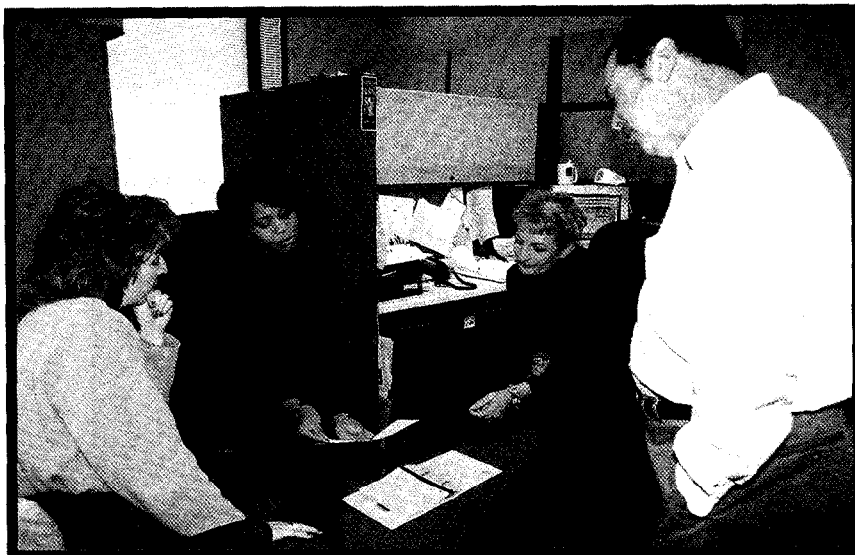
It comprises **Intelligent Transportation Systems** technology — bringing state-of-the-art processes to transportation needs. At the Resource Centers, ITS specialists work with ITS architecture and standards, systems integration, telecommunications, and hardware and software for transportation management systems. The ERC's ITS standards knowledge and technical expertise has been invaluable to States all over the nation. The ERC ITS Specialists helped the Puerto Rico Highway Authority (PRHA) incorporate the latest ITS standards in the development of an integrated incident management traffic operation center. This was the PRHA's first major effort in deploying ITS and required much specialized technical expertise and hand holding through contract proposal development and bid

selection. The PRHA saved time, money, space, and a lot of headaches with the help of the ERC team. The ERC expertise in telecommunications has also helped States like West Virginia pursue shared resource arrangements that allow telecommunications firms to install fiber optic infrastructure on Interstate right-of-way in exchange for fair compensation.

The MRC ITS Specialists gave eight local areas in the Midwest a jump start on developing ITS architectures. The work in these areas has since sparked interest in others to work in unison, enhancing safety and mobility regionwide. The MRC also authored several papers on ITS National Architecture given at venues including Transportation Research Board's Annual Conference, and the ITS Rural National Conference, and promoted ITS knowledge and deployment to audiences including MPOs, ITS Specialists, universities, and public officials.

Understanding that many States and municipalities lack sufficient staff with technical expertise in ITS technologies, the WRC devoted resources to address the needs of our customers by providing technical assistance and training in ITS. Services included presenting a seminar on "Telecommunications for ITS," and helping develop and deploy a transportation management system for San Francisco. They also assisted with fiber optic systems and design guides, developed ITS training and reviewed a grant proposal from the University of Idaho's National Institute for Advanced Transportation Technology, and helped that university develop ITS training.

The NHTSA Safety Liaison is also a part of the Highway Safety team, and studies issues like older drivers, pedestrian/bicycle safety, aggressive drivers and fatigue.



At the ERC, the NHTSA Liaisons were busy partnering with U.S. DOT modes and other organizations to make safety a priority. They worked with Law Enforcement counterparts to coordinate a presentation on the performance of barrier systems. The workshop was attended by more than 30 crash reconstructionists who came away with a better understanding of what happens to guardrails and other barriers during a crash. Figuring out what happens during a crash is the foundation for preventing future crashes. They also delivered a comprehensive "Stop Red Light Running Workshop" in the NHTSA Region 1 New England area — an area with more than 6 million people. This effort taught educational strategies for combating the problem, furthered the understanding of automated enforcement options, and prepared State and county officials for potential legislative challenges.

National statistics consistently show Southern States to have the greatest number of highway fatalities and the highest fatality rates in the country. Those statistics must be reversed, and the SRC helped provide the impetus to do that! The SRC assisted the FHWA Director of Field Services — South in convening the *Southern Safety Summit*, a gathering of most of the top transportation safety officials from the 13 States in the southern area. The 66 attendees at the August 15 Summit also included four State Secretaries of Transportation, FHWA Division Administrators from all 13 States, NHTSA's Regional Administrator, and FMCSA's Director of Enforcement. The FHWA's Safety Program Manager from Headquarters participated, as well as national safety experts from across the country. Never before had this region-wide safety problem been discussed in one forum by such a high-ranking group of transportation safety officials. It was a unique opportunity for these key decisionmakers to analyze the problem, learn what each State is doing to combat it (i.e., share Best Practices), and go back home to put



their knowledge into practice! The SRC has already seen considerable progress since the summit. Several States revised their safety plans as a result of what they learned at the Summit, others have purchased specialized safety equipment they viewed there, and all participants agreed on the need for further meetings of this type. In fact, two States (Kentucky and North Carolina) held State summits following the event, and each publicly credited the SRC event as being the catalyst.

The ERC, MRC, and the SRC Specialists reached out to the concerns of older drivers by presenting *Designing Highways for Older Drivers* workshops. These workshops helped ensure special needs were addressed in the planning process, rather than as an afterthought.

The WRC tackled the oversized problem of recreational vehicles on the highways, when they partnered with the Colorado Recreational Vehicle (RV) Association and organized a FHWA/ NHTSA team to conduct a 1-day RV Safety Clinic. The clinic included demonstrations of reaction time, speed vs. braking distance, vision testing, and trailer safety. Drivers were able to test their stopping and backing-up skills. Safety experts and service technicians were on hand to answer questions. The clinic was well attended and feedback was positive. Most importantly, RV drivers left with new ways to be safer highway users.

Highway Safety isn't only on the highway — the **Roadside Safety/ Design** teams work to make safety hardware and roadsides safer in the event a vehicle must leave the highway. The ERC has provided four workshops in Guard Rail Information Technology (GRIT) training and is leading an effort to encourage States to require that all installers and contractors complete GRIT training.

The ERC and the MRC provided Roadside Design Guide instruction to numerous States this year, modifying the course to include major items of concern to specific areas as needed. MRC provided course materials to

"Your particular knowledge and expertise complemented this session ["Decisions on Highway Design and Traffic Control Devices"] and resulted in an increased awareness of ways to ensure optimal safety when designing highway projects."

*Tracey Praul,
Conference Co-Chair,
Maine Transportation
Safety Coalition*

Indiana DOT and to consulting firms, enhancing their familiarity with both the concepts of roadside safety, and Federal and State policies. The MRC delivered technical presentations to over 80 county engineers from ten Midwestern States on Implementation of NCHRP 350 – deployment of safety hardware including bridge rails, guardrails, transitions, breakaway sign and luminaire supports, and energy absorbing terminals.

The Safety **Infrastructure** team ensures that the hardware and safety management systems that keep our highways running are the best they can be. The ERC NHTSA Liaison and another member of the ERC Safety team were recognized for their contributions to the 2000 Transportation Engineering and Safety Conference. They were credited with personally ensuring that the program included safety sessions reflecting national goals for reducing fatalities, broadening the program's perspective, and providing a more comprehensive understanding of safety.

The MRC Safety team was quite active in this area in FY 2000. They traveled to Sweden for an international scanning tour, which examined and identified several new technologies and design approaches being used abroad. One such Swiss technology was a crosswalk lighting plan that has helped reduce pedestrian fatalities by two-thirds. They also found that partnering with the University of Missouri helped them accelerate the demonstration schedule for the Sign Management and Retro-reflectivity Tracking System (SMARTS) van throughout the Midwest. On this new fast track, the MRC engineers were able to demonstrate this technology in ten States, two national conferences, and a number of Statewide conferences including a local chapter of American Society of Civil Engineers. Additionally, they developed a Safety Peer Exchange focused on Safety Management Systems. The exchange allowed them to share knowledge with 19 States and

several local communities about promoting safety management processes; deploying lifesaving technologies on the highways; and focusing on outreach and partnership opportunities to transfer technologies to the appropriate audience.

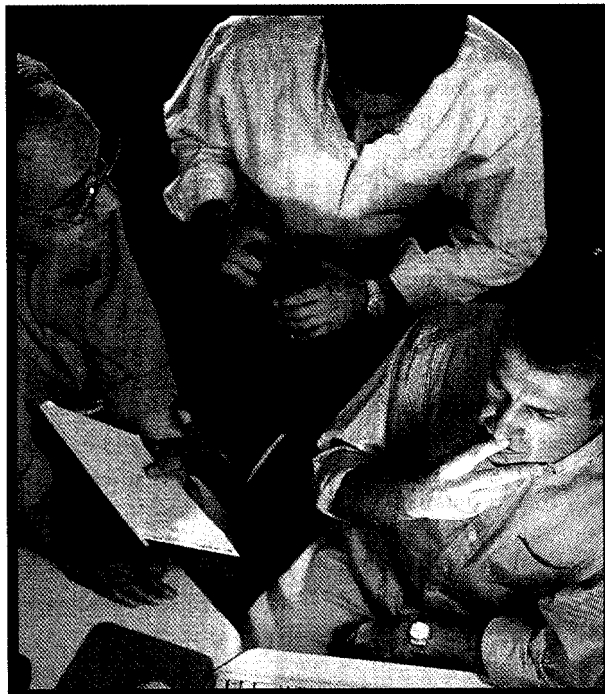
Helping to bring it all together in Highway Safety is the **Transportation Management** team. This team is the glue that helps monitor project development, freeway management, traveler information systems and more. MRC staff involvement was key to bridging the gap between academia (both the University of Michigan and Virginia Tech) and the private sector in developing and delivering a web-based ITS course to transportation professionals, thus ensuring enhanced transportation competencies of today's workforce and that of the future. The MRC made strides toward more effective winter maintenance by refocusing an existing international project to apply to North American roads. The team's presentation brought in \$5,000 in funding to develop a course in Road Weather Information Systems; thereby making more effective winter maintenance techniques

available and helping get highways back to full service after major snow storms in the United States.

The SRC recognized the importance of mobility and national security during crises, and presented a workshop on Regional Traffic Management During Natural Disasters. The workshop focused on effective evacuation procedures, and initiated the development of a multi-State, integrated traffic management tool for natural disasters.

The WRC assisted the Idaho Division with the ongoing work in the Boise area to develop an Advanced Transportation Management System, and provided review services for New York City's proposed contract for 10,000 new traffic signal controllers. The WRC also provided draft work scopes for securing design/build services for an automatic vehicle identification system and a dynamic message sign system for Bryce Canyon National Park.

The four Resource Centers worked together to help the public safely cross the road — with special workshops and programs geared to red-light running, highway rail crossings, and intersection safety.



Planning & Environment

The Human and Natural Environment touches all of us. It is also directly impacted by our transportation system and the decisions we make. In an effort to improve overall transportation decision-making and foster increased streamlining, the Resource Centers' Planning and Environment teams collaborate and share knowledge. In this way, the planning and

customers' needs and allows participants to explore issues in greater detail with a pool of ERC expertise.

Air Quality is probably the environmental aspect most impacted by surface transportation. The ERC serves as home base for the *Air Quality Update*, a website newsletter filled with insightful articles about the latest

developments, policy shifts, and litigation in this ever-changing area. The ERC has been actively involved in monitoring the progress of the proposed Environmental Protection Agency (EPA)/DOT regulatory language concerning conformity in new non-attainment areas, and has kept the field informed. In addition, ERC staff developed and delivered detailed briefings on the Environmental Defense Fund litigation and its

impact on and potential for conformity lapse, as well as the status of grandfathered projects. The team also provided Headquarters with comments on legal issues and planning implications surrounding the EPA's appeal of the Nitrogen Dioxide State Implementation Plan (NOx SIP) ruling.

The SRC's Air Quality Specialist was specifically requested by a customer to develop a workshop on the emission factor and dispersion models. This workshop was presented to enthusiastic audiences across the country in 2000. Attendees gained a greater understanding of the impact of air pollutants on human health and welfare, thus enabling them to improve the quality of their own environments. The SRC also developed a framework for evaluating and prioritizing performance measures to assess mobility, efficiency, public access, environmental

effects, project funding options and other factors involved in a transportation system. This framework was outlined at a 1-day work session before the Georgia Regional Transportation Authority's Board of Directors and others charged with improving Atlanta's transportation system and the quality of the region's air.

Both of the WRC's Air Quality Specialists have played key roles in improving air quality, not just for the region, but for the Nation. Recognizing that air toxics is an emerging area of concern in the transportation field, the WRC developed an issue paper on the subject and has closely followed regulations developed on air toxics by the EPA. In addition, the WRC has been an integral member of a multi-agency team focused on resolving potential air quality conformity lapses in Los Angeles and the San Francisco Bay Area. The team found creative ways of interpreting the conformity requirements without compromising air quality commitments. Without such an approach, those lapses could have resulted in major construction delays-resulting in millions of dollars in additional project costs.

The Resource Centers' **Environmental Program** focuses on social and cultural issues, environmental justice, public involvement, NEPA coordination, and more. The ERC represented FHWA at a Historic Preservation Forum — an ambitious public involvement and interagency coordination endeavor in conjunction with the Ohio River Bridge project in Louisville, Kentucky. Presentations were provided on the National Historic Preservation Act procedures, the Section 106 process, and the



environmental processes are more effectively linked. The MRC initiated the first annual FHWA Resource Center Planning and Environment Meeting which improved (communication and partnering efforts) between the Centers' Planning and Environment staff. This initiative also provided strong linkage between Resource Center and Headquarters Planning and Environment staffs.

In an effort to improve training delivery, the ERC Planning and Environmental Team, for example, took an interdisciplinary approach to teaching its courses. While the National Environmental Policies Act (NEPA) course is primarily taught by the ERC Environmental staff, the course also incorporates instruction by ERC Planning, Civil Rights, and Legal staffs. This customized approach brings our collective expertise closer to the

requirements of Section 4(f) for the protection of parklands, recreation areas, refuges, and historic sites. This work was completed as part of a 3-year study to evaluate various transportation options to connect Louisville and Southern Indiana. The ERC assisted the FHWA Headquarters Office of NEPA Coordination in developing the first-ever "National Environmental Streamlining Workshop," attracting 200 representatives from 12 Federal agencies, with a stake in improving transportation project reviews. As such, the workshop resulted in a refined "national toolbox" of strategies for meeting environmental streamlining goals and implementing best practices nationwide.

The MRC also made great strides toward

"[The workshop will be a] catalyst for accelerating the rate of change to achieve a clean environment and an efficient transportation system. This is the first time such a diverse group has come together to focus on concrete ways to advance transportation projects in an environmentally responsible manner."

Then-FHWA Administrator Kenneth Wykle remarked in reference to the ERC-lead Environmental Streamlining Workshop.

the goal of reducing project development timelines while, at the same time, protecting the environment with their Multi-State Streamlining Memorandum

of Understanding (MOU). This document serves as a framework under which six States can develop and implement streamlining State-specific MOUs. It establishes high-level interagency commitment to fundamental streamlining principles, standards, and strategies.

The SRC staff enabled the Director of Field Services - SOUTH to continue helping Metropolitan Planning Organizations (MPOs) and government agencies at all levels to effectively incorporate the principles of Environmental Justice (EJ) into the transportation planning process. Staff members presented EJ workshops and training sessions for planning and environmental professionals in Oklahoma, Tennessee, Florida, and Texas. In addition, the SRC also conducted "Environmental Leadership Seminars" across the south – the first-ever concerted effort to educate environmental consultants about the importance of merging transportation and environmental thinking. This activity results in transportation projects that improve the public's access to goods and services, while simultaneously enhancing the natural environment around the projects and protecting the quality of life for citizens who live nearby.

The Atlanta-based team provided a

"I am sure we'll be asking for additional help . . ."

David McCoy, North Carolina DOT Secretary of Transportation writes to SRC following Environmental Leadership Seminar.

1 M-day workshop on Environmental Justice and Policy for transportation planning and environment professionals in Oklahoma. The outreach was aimed primarily at MPOs, but included organizations involved in transportation planning and the general environment, and highlighted issues related to civil rights, Native American tribes, and the NEPA. The WRC Environmentalists also hosted a successful Western Environmental Meeting in San Francisco in May.

"... a 'blueprint' for future similar studies in the Atlanta metropolitan area . . ."

Atlanta Journal-Constitution, in a story on the SRC-developed framework for evaluating and prioritizing performance measures in the Atlanta Regional Transportation Plan.

Intermodal and Statewide Planning tackles congestion management, freight movement and geographic information systems. The ERC has developed customized training in GIS technology to meet the needs of customers in Maryland and New York, and a staff member serves as a National Highway Institute (NHI) instructor and reviewer of the GIS-T course. This team also coordinated a GIS-T presentation geared toward high school students that was shared through the Garrett A. Morgan Program's partner schools.

The SRC facilitated a plan to coordinate reconstruction of I-4 – one of the most heavily traveled highways in the nation. This roadway connects Tampa to Daytona and serves Disney World, Sea World and Universal Studios, as well as commuter traffic. The SRC brought together a collaborative, intermodal team effort that will enhance the State's transportation system, while preserving environment and community along the highway.

The WRC planners played a key role in



"... numerous successes were realized as well as relationships developed that will ultimately culminate ... in an environmental document acceptable to all parties ..."

*Florida DOT District Secretary
Nancy Houston writing on the
SRC's technical support
on the I-4 project.*



conducting the Annual Intermodal Planning Group (IPG) Conference in late 1999 at Lake Tahoe, as well as the San Diego IPG conference held in November 2000. The IPG brings together Federal, State, and local planning officials to address topics of current interest. The conference has been successful for over a quarter century thanks, in part, to close collaboration between FHWA and the Federal Transit Administration (FTA). WRC's Statewide Transportation Planner put together the most comprehensive compilation of Statewide planning practices in the Nation. While the effort was originally aimed at States in the Western Association of State Highway and Transportation Officials (WASHTO), its value was quickly recognized by FHWA Headquarters. As such, Headquarters supplied the material to other States as well as several other Federal agencies.

In the Metropolitan Planning area, the National Highway Institute course "Overview of Metropolitan Transportation Planning" has been undergoing revision and improvement over the past year. The Resource Center planning staffs have played key roles as members of the Project Team tasked with developing this important and timely course update. Resource Center planners have been providing valuable input on course content, best practices and presentation techniques as part of a

coordinated effort with FHWA and FTA Headquarters staff, NHI adult learning specialists, and the consultant team.

In direct response to customer need, the ERC developed an additional training opportunity that has been well received by Division and partner organizations. The "Overview of Travel Demand Forecasting" workshop — a 1-day offering — seeks to simplify the complex travel demand modeling process that is an intrinsic part of the planning and project development processes. This simplified workshop is designed for non-modeling transportation professionals (i.e., field office staff, managers, policy makers, attorneys, etc.) who need to have an understanding of the technical jargon and the basics of the traditional 4-step modeling process.

The SRC organized and cosponsored an all-day workshop in Orlando, to discuss the importance of aligning planning initiatives. Attendees included officials from transportation agencies, MPOs, and traffic planners. This community of practice exchanged ideas on the most effective ways to achieve plan alignment. The SRC also developed and presented a 2-day *Transportation Conformity Workshop* to provide FHWA, State DOTs, local transit administrators and other stakeholders with an introduction to the 1997 National Ambient Air Quality

Standards, the compliance process and its relationship to the metropolitan planning process.

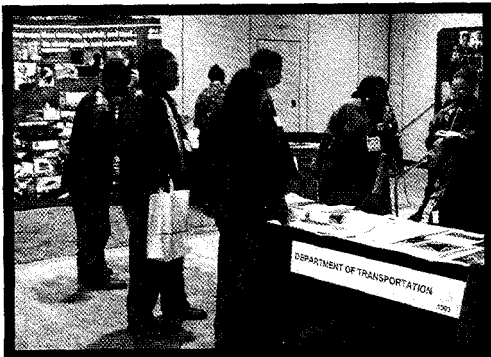
*"North Carolina Division
would like to thank [the
ERC] for the excellent
presentation given on
MOBILE 6 and its impacts
on Modeling Conformity.
... presented in a manner
that was informative and
comprehensible ... it was
suggested [he] return to
North Carolina and
provide other
presentations/training ...
on modeling, air quality,
and transportation
conformity."*

*Nicholas L. Graf, Division
Administrator, North Carolina*

Service Areas

Civil Rights

The ERC, along with partner States and FHWA Headquarters' Office of Civil Rights staff, participated in "U.S. Black Engineer of the Year Conference." The FHWA showcased transportation-related career options and the Garrett A. Morgan Program to high-school and college-aged students. Engineering, construction, and ITS were among the highlighted career tracks.



The MRC provided technical assistance to States and divisions regarding final approval and implementation of their Disadvantaged Business Enterprises (DBE) programs. The MRC Civil Rights team also coordinated the merger of two former civil rights councils, assisted with planning the Midwest DBE conference, and provided training to States on environmental justice, Title VI, contract compliance, and internal EEO.

The SRC developed a program featuring speeches, Question and Answer sessions, panel discussions, and best practices presentations on the new DBE regulation issued in February 1999.

The WRC provided training on Title VI of the Civil Rights Act and the Executive Order on Environmental Justice to FHWA Division Offices, State transportation agencies, and metropolitan planning organizations throughout the Region.

Financial Management

The SRC worked with a Wisconsin DOT auditor to share knowledge contained within the WISCDOT "Uniform Audit and Accounting Guide." The team enhanced productivity by offering a more efficient and effective method of auditing consultants who perform engineering and engineering-related work for State highway agencies.

"Just wanted to say thanks for providing a couple of great technical experts . . . They did an excellent job in providing valuable information . . . to us and several Tennessee DOT officials."

*Frank Vickers, Financial Manager,
Tennessee Division Office*

Information Analysis

The ERC, in cooperation with Maryland State Highway Administration, developed and now maintains an FHWAASHTO website on Context Sensitive Design.

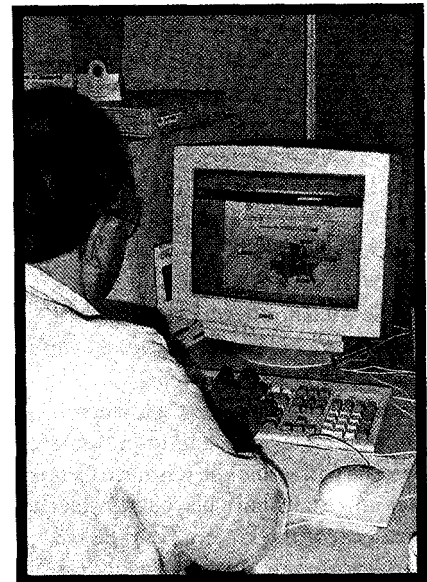
The MRC developed a customer feedback system, known as the Customer Survey, for the Resource Centers. The Customer Survey can be

"The reason the Southeast has the best audit program in the country is because we have the SRC."

*J. Bruce Dillard, Audit Manager,
North Carolina DOT*

accessed through the website of each Resource Center and is a useful tool to capture customer satisfaction with the assistance provided by the centers.

The MRC took the lead in developing a web-based Expertise Locator System for the FHWA, to assist agency customers (both internal and external) in locating appropriate technical expertise within the agency.



...bringing tomorrow's solutions to today's transportation needs.

Information Management

The ERC, working in conjunction with Headquarters and the Puerto Rico Division, successfully tested transmitting PR20 transactions directly to Washington from the Virgin Islands and Puerto Rico highway departments. The test was so successful, provisions were made to implement this process into the production system six months ahead of schedule. This is a significant step for the Virgin Islands as it is the first time the Islands have had the capability to electronically transmit their PR20 billing transactions. Prior to this, the Virgin Islands were dependent on FHWA Headquarters and/or the Puerto Rico Division to input their billing transactions. This process eliminates the intermediary office, providing the Virgin Islands independence and control over its data.

Marketing/Media

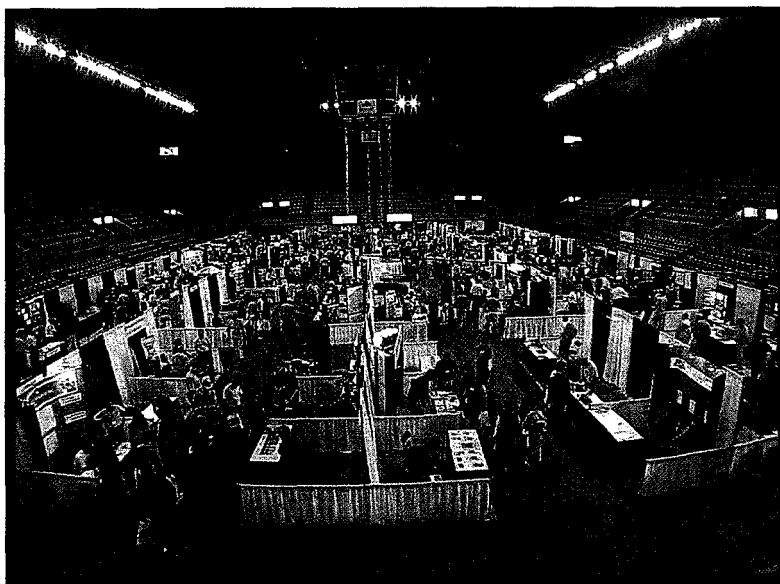
The ERC, SRC, MRC, and WRC coordinated "National Work Zone Safety & Mobility Awareness Week" activities,

including the transmittal of Driving Safety Tips, posters, and videotapes to high schools around the Nation. This helped improve the safe operation of vehicles, in and around highway work zones, by young drivers in particular.

Annually, the ERC coordinates the "Eastern Winter Road Maintenance Symposium & Equipment Expo," showcasing the latest strategies,

techniques, and equipment available to combat the effects of winter on our Nation's roadways. The symposium typically attracts 1,600 attendees (from local, State and Federal government agencies, academia, and industry) from more than 35 States. Bi-annually, the ERC coordinates a similar symposium as part of the APWA's "Western Snow & Ice Conference" in Colorado.

The ERC, MRC, SRC, and WRC marketing/media and technology transfer staffs have participated on the Headquarters-driven "Technology and Innovative Network (TIN)" task force. The teams worked with Research, Development and Technology and the CBU's/SBU's to develop Marketing and Technology Transfer priorities and tools for the agency. Anticipated results include agencywide marketing standards, and the establishment of communities of practice for technology transfer.

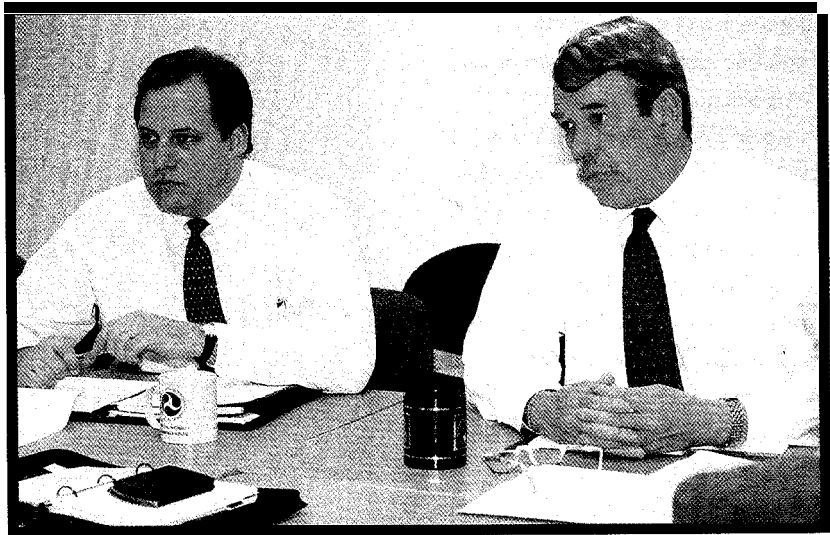


The SRC developed a ONE DOT, multi-modal solution to the port expansion project on Daniel Island around Charleston, resulting in a more efficient transportation system that gives the public more access to activities, goods, and services.

The SRC Marketing/Media Team assisted with “National Town Hall Meeting on Transportation Safety.” (See *“Highway Safety and Operations”* for the details)

The SRC informed young people about the many exciting career opportunities in transportation and related fields when they reached out to more than 3,200 students in Georgia and Texas through school visits and participation in Construction Career Day activities.

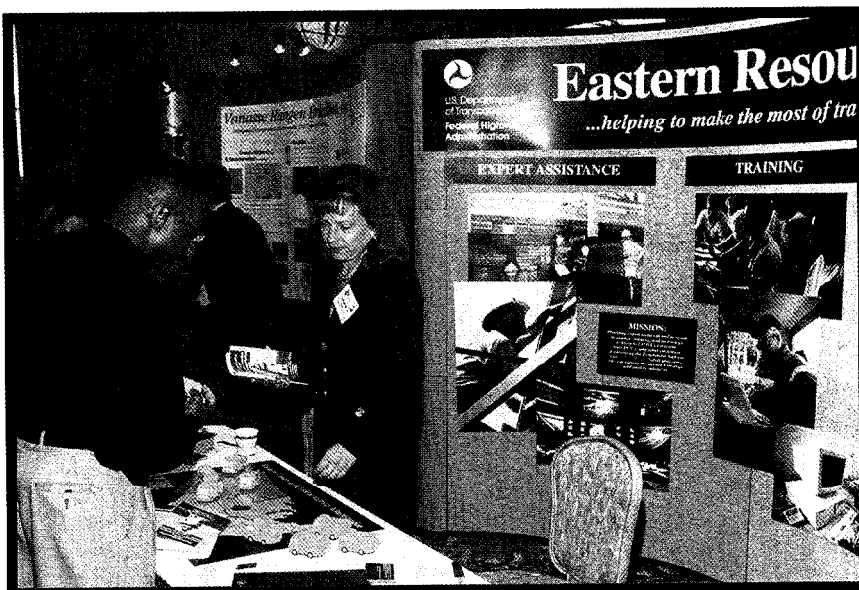
The ERC, SRC, MRC, and WRC coordinated ‘National Transportation Week’ activities.



Strategic Planning/ Quality Journey

The ERC, MRC, SRC, and WRC conducted baseline assessments in Division Offices and Resource Centers across the Nation. Quality Coordinators were actively involved in presenting training on Continuous Process Improvement and Performance Measurement.

The WRC Corporate Management Team had a key role in initiating, planning, organizing and helping conduct a “National Quality Conference” in September hosted by the Arizona Division, which was attended by representatives of virtually every FHWA office.



“Everyone wants to make the transportation system better for travelers. [The SRC’s initiative for] aligning strategic and performance plans is a critical step toward accomplishing that.”

*Thomas Barry Jr., Secretary,
Florida DOT*

Administrative Support Staff

When the Resource Center staffs need help with any aspect of office management, they turn to their support staff. This group of talented staff has more than 200 years of combined experience in providing administrative and office management services. Since the implementation of the Resource Center concept, support staff and administrative personnel continue to keep the offices functioning while meeting the needs and demands of the staff and our customers.

They are experts on:

- information technology and computer applications
- financial and budget information systems, such as the Departmental Accounting and Financial Information System (DAFIS) and the Financial Management Information System (FMIS)
- helping facilitate development of individual development plans and registration for training sessions with the Learning and Development System (LADS)
- Travel Management – PerDiemAzing, meeting and conference planning, and other administrative and management services
- managing employee timekeeping and leave with the Integrated Personnel and Payroll System (IPPS)
- procurement and acquisition of services and products
- computed-based presentations, marketing aides, and information dissemination

The support staff takes its name seriously. These individuals are the fundamental support structure that allows the Resource Centers to function at such a high level. Without them, the Centers' products and services could not be delivered in a timely and professional manner. They provide technical assistance on procedures for managing permanent and project files, inventory control, and effective procurement techniques.

Resource Center support staff teams have worked to improve internal mail processes, calendars and itineraries, and provide more efficient handling of incoming and outgoing packages. They have established electronic mailboxes so that staff members can communicate their needs to the Internal Operations Team. That way, if one member of the team is out, the entire team checks the box and tends to requests. This team approach is in line with the Resource Centers' seamless style of customer service.



"Thank you for. . . participating during the past year in the development of the "Human Factors for Transportation Engineers" Workshop. . . FHWA will be able to achieve its safety goals with the knowledge and expertise of employees such as [yours]."

Bud Wright, Program Manager, Safety CBU, Headquarters

"I hope you will bring this approach to other States to increase dialogue there. I think it can be a great tool linking our vision and goals with practitioners at all the delivery levels inside and outside the Federal Highway Administration."

James St. John, Division Administrator, Florida

"Why can't we have a [railroad auditing] program like you have in the Southeast?"

A participant at the AASHTO Audit Subcommittee meeting

"Your unselfish efforts, professional attitude, and outstanding assistance did not go unnoticed."

Thomas D. Meyers, Division Administrator, Delaware



"This type of boundary-less FHWA support lends credibility to FHWA's resource center organization structure and technical support role."

Timothy LaCoss, Pavement & Materials Engineer, New York Division Office

"Let me emphasize how pleased I am to acknowledge your extraordinary contributions. Your hard work, skill and imagination were key to the results we achieved."

Kenneth Wykle, then-FHWA Administrator, in reference to assistance provided in resolution of "City of Alexandria (Va), et. al. v. Slater" case.

"Thank you for providing invaluable service . . ."

Vicki Smith I-4 Project Director, Florida DOT

...bringing tomorrow's solutions to today's transportation needs.

The Power of People

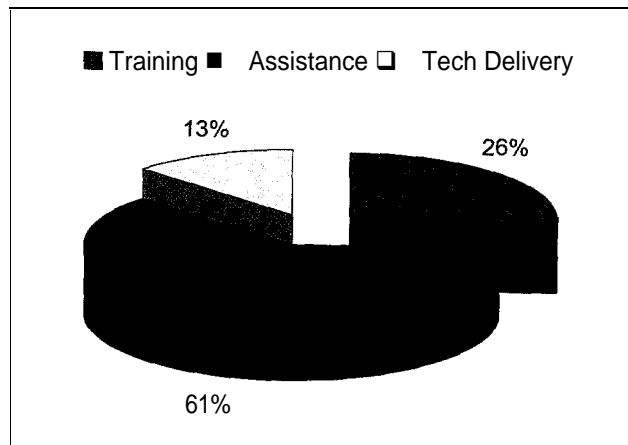
Performance Measures

What Our Data Tells Us About Operations

On Customer Demand

Our program and technical expertise comprised the lion's share of our deliverables to our customers, followed by the development and delivery of training courses. Technology delivery and deployment have not yet reached 20 percent, but are up from the previous year's deliverables. Interagency Coordination (not shown) embraces less than 5 percent of the total.

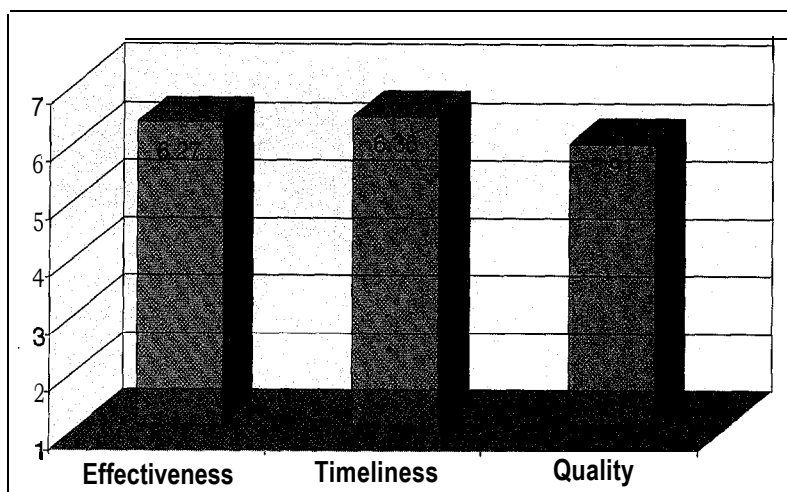
What Services Do we Provide?



In an effort to deliver effective products and services in a timely manner, we consistently ask for feedback from our customers. This ensures we meet their needs. We also ask that our customers rate our level of quality, so that we may

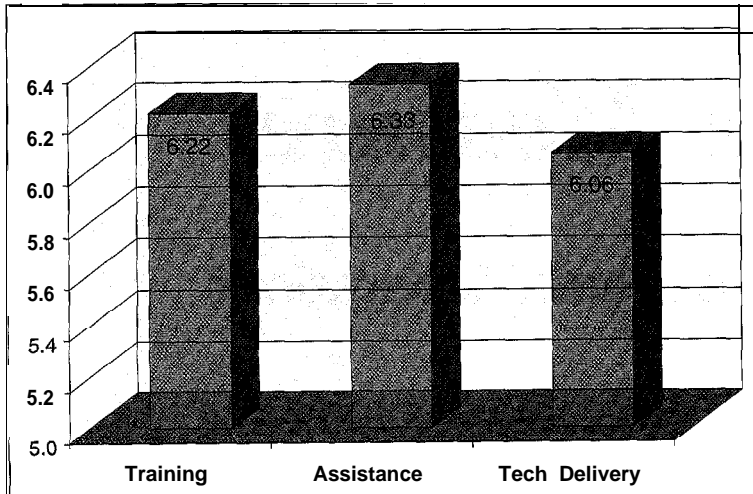
continue to design strategies to improve our deliverables. On a scale of 1-7, with 7 being the highest level of satisfaction, this is what our customers say:

Our Customer Satisfaction



Looking at our key business processes, customers have told us that our services are effective. They are meeting their needs and reaching beyond. For example, technical assistance reached a 6.33 rating on a scale of 7, telling us our expertise is well targeted. Still, we recognize additional honing will be required to reach the ever advancing goal of service excellence.

How Effective is Our Service?



With one full year's challenges and experience behind them, the Centers identified three internal strategies that were key in moving business operations forward in customer awareness and service.

KEY STRATEGY

Improve from the inside out

The Resource Centers conducted Baldrige-type baseline self-assessments in FY 2000. Improvement Teams were set up to focus on elements critical to normalization of the Resource Centers' operations. The results of these efforts led to the development of a RC Mission Statement that

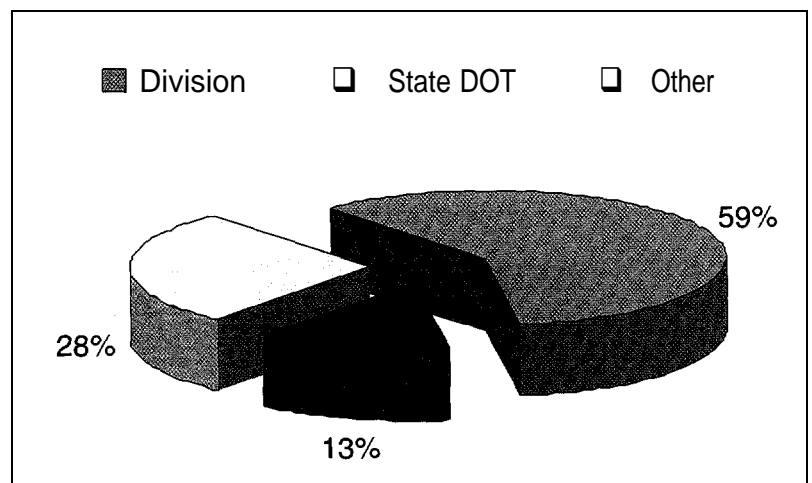
embraced all aspects of Resource Center directions and activities. Organizational targets centered around improving staff capacity, and achieving Resource Center-wide horizontal alignment with clearer leadership roles and broad team concepts as strategies to improve customer service delivery.

KEY STRATEGY

Promote strong customer focus.

The Divisions are our primary customer, providing 59 percent of the total business interaction based on our feedback. A key Resource Center strategy has been for our specialists to network and partner with Division-level specialists to identify needs and design effective solutions. Looking at the distribution of our customers as represented by the 718 individual feedback reports in the accompanying graph, State Departments of Transportation comprise a much smaller portion of respondents with 13 percent of the feedback. Other respondents (28 percent) may include academia, other Federal organizations, and metropolitan planning organizations.

Who are Our Customers?

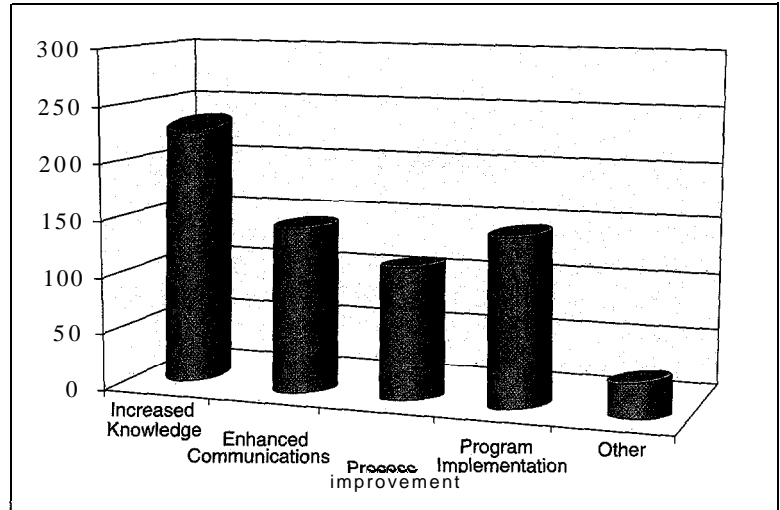


What are the Results of Our Efforts?

KEY STRATEGY

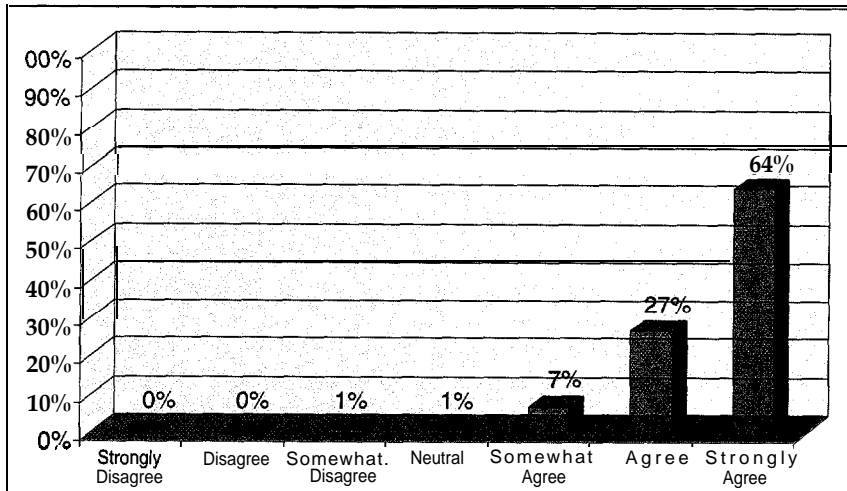
Get Results

What do our efforts lead to? Utilizing our four key business approaches, the Resource Centers have had a substantial impact on the operations of FHWA Division Offices, State Departments of Transportation and other transportation entities. With a focus on results, the Resource Center efforts have led to increased knowledge in state-of-the-practice and state-of-the-art transportation concepts. Meetings, conferences, and training have served to enhance communications, improve processes, and facilitate program implementation across the Nation.



Program and process improvements focused on increasing value within the agency, Discussions on how the Resource Centers added value to agency directives became a part of improving strategic planning within the Centers.

Did Our Assistance add Value to Customers?



Exceeding expectations, one Center, based on 110 responses, reported that 91 percent of its customers responding to the survey agreed: the **Resource Center assistance added value** — with 64 percent of those indicating value was added to a large degree.

The Resource Centers are pleased with the exceptional results of FY 2000, and actions are underway to further improve in all segments of our business. We have employed further internal improvements to achieve full staffing levels.

Building staff competency and obtaining Adult Learning Instructor certification for a majority of the staff continue to be part of the strategy.

Resource Center management is also seeking ways to customize our services to better meet Division Office needs. In fact, we are working to expand our customer base to permit a greater exchange of information, concepts, and best practices, as well as promote intermodal and interagency coordination. These efforts will open the door to enhanced surface transportation, design, and management.

The Resource Centers have excellent opportunities for growth. New ways of assessing customer requirements, including the development of uniform approaches to data collection, performance planning, and measurement, are being identified by Resource Center management. This work is being completed to acquire better results for our customers and to improve our documentation process.

Resource Center productivity is measured favorably in four key areas: high and increasing customer approval, repeat business, customer assessment of the value, and the impact of the Centers on customer operations.

Contact Us

Eastern Resource Center (ERC)

Director of Field Services -
EAST - Gene Fong (410) 962-0093
ERC Manager - Bob Callan (410) 962-0093
Infrastructure Team Leader - Lou Triandafilou (410) 962-3648
Safety & Operations Team Leader - Steve Clinger (410) 962-0095
Planning & Environment Team Leader - Joe Wyrning (410) 962-0048
Services:
Civil Rights - Gene Armstead (410) 962-0089
Information Analysis - Vacant (410) 962-3647
Information Management - Marvin Bell (410) 962-0080
Marketing - Deborah Vocke (410) 962-3744
Media - Carin Michel (410) 962-2530
Strategic Planning/Quality Journey - Iona Harris (410) 962-0134
Technology Deployment - Chris Allen (410) 962-2486

Midwest Resource Center (MRC)

Director of Field Services -
MIDWEST - George Ostensen (708) 283-3510
MRC Manager - Bruce Matzke (708) 283-3505
Infrastructure Team Leader - Monte Symons (708) 283-3549
Safety & Operations Team Leader - Pat I-Iasson (708) 283-3595
Planning & Environment Team Leader - Mary McDonough-Bragg (708) 283-3542
Services:
Civil Rights - Joe Forst (708) 283-3560
Information Analysis - Robert Williams (708) 283-3514
Information Management - Robert Williams (708) 283-3514
Marketing - Mary Carroll (708) 283-3520
Media - (vacant) (708) 283-3570
Strategic Planning/Quality Journey - Denise Bednar (708) 283-3503
Technology Deployment - (vacant) (708) 283-3549

Southern Resource Center (SRC)

Director of Field Services -
SOUTH - Eugene Cleckley (404) 562-3570
SRC Manager - Jim Erickson (404) 562-3570
Infrastructure Team Leader - Michael Fraher (404) 562-3695
Safety Team Leader - Frank Julian (404) 562-3986
Operations Team Leader - Greg Jones (404) 562-3906
Planning & Environment Team Leader - Robert Radics (404) 562-3692
Services:
Civil Rights - Teresa Banks (404) 562-3592
Information Analysis - Jacqueline Hill-Brown (404) 562-3911
Information Management - Larry Owen (404) 562-3593
Marketing - Judith Johnson (404) 562-3682
Media - Michael Thomas (404) 562-3668
Strategic Planning/Quality Journey - Miguel Torres (404) 562-3927
Technology Deployment - Tim Barkley (404) 562-3732

Western Resource Center (WRC)

Director of Field Services - WEST - vacant (415) 744-3102
WRC Manager - Gary N. Hamby (415) 744-3102
Infrastructure, Safety & Operations Team Leader - Roland Nimis (415) 744-2653
Program Development (Planning & Environment) Team Leader - Bob O'Loughlin (415) 744-3823
Services:
Civil Rights - Willie Harris (415) 744-3110
Information Analysis - Linda Collins (415) 744-0118
Information Management - Cheryl Montero (415) 744-2622
Marketing - Kathleen Bergeron (415) 744-2613
Media - Steve Moler (415) 744-3103
Strategic Planning/Quality Journey - Joe Steinbock (415) 744-2649
Technology Deployment - Joe Steinbock (410) 744-2649

Useful Websites:

To reach the Resource Center closest to you:

<http://www.fhwa.dot.gov/resourcecenters/eastern>
<http://www.fhwa.dot.gov/resourcecenters/midwest>
<http://www.fhwa.dot.gov/resourcecenters/southern>
<http://www.fhwa.dot.gov/resourcecenters/western>

To reach Agency Technical Expertise through the Resource Center Expertise Locator:

<http://www.fhwa1.ornl.gov>

