



# Transportation Library Connectivity Pooled Fund Study, TPF-5(105)

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Final Report, Project 0092-06-31

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**NOTICE:**

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16. Abstract This report is a record of the formation, major activities and accomplishments of the Transportation Library Connectivity pooled fund study, TPF-5(105), from its approval by FHWA in 2005 through its fifth and final annual meeting in September 2010.  Some 50 state departments of transportation, 600 transit agencies and nearly 400 metropolitan planning organizations generate a staggering amount of valuable information, yet the transportation sector lacks a systematic approach to effectively manage this information. This challenge has been well-documented in reports such as the Federal Highway Administration's <i>Value of Information and Information Services</i> ; the National Cooperative Highway Research Program's <i>Scoping Study for a National Strategic Plan for Transportation Information Management</i> ; and the Transportation Research Board's Special Report 284, <i>Transportation Knowledge Networks: A Management Strategy for the 21st Century</i> .  The Transportation Library Connectivity pooled fund study was formed against the backdrop of these challenges and developments. By working together more closely and more formally as transportation agency libraries, members improved services to their customers and also enhanced their readiness to embrace the planned policy changes recommended by TRB SR 284 for inclusion in the next surface transportation funding act. During its five years, study membership grew from 11 members in nine states to 25 members in 22 states. A new pooled fund study, to be led by Missouri DOT, is being formed to build upon the achievements of this study.			
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## **Acknowledgments**

### **Technical Advisory Committee**

This study was proposed by the Wisconsin Department of Transportation as the lead state for the Transportation Library Connectivity Pooled Fund Study, TPF-5(105). The work was guided by the Technical Advisory Committee chaired by Ann Pahnke and previously by study champion Nina McLawhorn, Wisconsin DOT. Current members of the TAC are Dale Steele, Arizona DOT; Janet Coles, California DOT; Betty Ambler, Connecticut DOT; Inez Hopkins, Idaho Transportation Department; Karen Perrin, Illinois DOT; Hank Zaletel, Iowa DOT; Marie Manthe, Kansas DOT; Matthew Barrett, Los Angeles County Metropolitan Transportation Authority; Sandra Brady, Louisiana Transportation Research Center; Alexandra Briseno, Michigan DOT; Sheila Hatchell, Minnesota DOT; Cindy Smith, Mississippi DOT; Anthony J. Million, Missouri DOT; Sue Sillick, Montana DOT; Carol Paszamant, New Jersey DOT; Krystyna Cherry, New Mexico DOT; Jane Minotti, New York State DOT; Zona Kahkonen Keppler, Ohio DOT; Laura Wilt, Oregon DOT; Bonnie Fields, Pennsylvania DOT; Sandra Hoff, Tennessee DOT; Arlene Mathison, University of Minnesota Center for Transportation Studies; Kathy Szolomayer, Washington State DOT; Jason Bittner, Wisconsin Transportation Center, University of Wisconsin–Madison; and John Cherney, Wisconsin DOT.

### **Research Managers and Others**

The research managers, administrators and others who assisted in the administrative oversight of this study included Daniel Yeh, Wisconsin DOT; Anne Ellis, Arizona DOT; Christine Azevedo, California DOT; Jim Sime, Connecticut DOT; Ned Parrish, Idaho Transportation Department; Amy Schutzbach, Illinois DOT; Carol Culver, Iowa DOT; Rodney Montney, Kansas DOT; Monica Del Toro, Los Angeles County Metropolitan Transportation Authority; Skip Paul and Glynn Cavin, Louisiana Transportation Research Center; Calvin Roberts, Michigan DOT; Deb Fick, Minnesota DOT; James Watkins, Mississippi DOT; Mara Campbell, Missouri DOT; Sue Sillick, Montana DOT; Ed Kondrath, New Jersey DOT; Scott McClure and Dee Billingsley, New Mexico DOT; Gary Frederick, New York State DOT; Jennifer Gallagher, Ohio DOT; Barnie Jones, Oregon DOT; Elizabeth Bieryla, Pennsylvania DOT; Sandra Hoff, Tennessee DOT; Laurie McGinnis, University of Minnesota Center for Transportation Studies; Leni Oman, Washington State DOT; and Teresa Adams, Wisconsin Transportation Center, University of Wisconsin–Madison. Ex officio members included Amanda J. Wilson, National Transportation Library at U.S. DOT; Barbara Post, Transportation Research Board; Bob Cullen, American Association of State Highway and Transportation Officials; Ken Winter, Virginia DOT/Virginia Transportation Research Center and chair of the TRB Library and Information Science for Transportation Committee; and Sandy Tucker, Texas A&M University and past chair of the TRB LIST Committee. Special project partners included Rita Evans, library director, Institute of Transportation Studies, University of California, Berkeley; and Jennifer Boteler, Federal Highway Administration Research Library, Turner-Fairbank Highway Research Center.

## Introduction

This report summarizes the goals, methodology and results of the Transportation Library Connectivity Pooled Fund Study, TPF-5(105), conducted from 2005 through 2010 to improve information services throughout the transportation sector and to encourage formation of a national Transportation Knowledge Network and regional TKNs. Through its five-year life the study grew from 11 members in nine states to 25 members in 22 states.

The study built on recommendations of the 2003 [\*Scoping Study for a National Strategic Plan for Transportation Information Management\*](#), funded by the National Cooperative Highway Research Program, and on the vision of the 2006 Transportation Research Board Special Report 284, [\*Transportation Knowledge Networks: A Management Strategy for the 21st Century\*](#).

The goal of the study was to advance the systematic sharing of transportation library resources and best practices and to identify needs for the future. Consultants developed an annual work plan to meet this goal in consultation with the study's Technical Advisory Committee, employing a variety of methodologies, including a Web site, teleconferences, webinars, site visits, technical consulting, marketing and outreach, special projects, professional development and library networking.

Activities of the study have resulted in several major accomplishments, including the creation of a prototype national infrastructure for transportation libraries; publication of the *Transportation Librarian's Toolkit*; increased awareness of the value of library and information services; professional development opportunities for member librarians; resolution of individual problems and challenges through technical assistance; and, for some members, payment of library network subscription fees.

A consortium model was used to achieve study goals, working with national partners such as the National Transportation Library at U.S. DOT, Transportation Research Board Committees on Library and Information Science for Transportation and on the Conduct of Research, the AASHTO Research Advisory Committee and the Special Libraries Association.

For a more detailed view of the first two years of the study, please see the [\*2007 Interim Report\*](#). Also see the brief folio-style annual reports: [\*Year Three Report—Fiscal Year 2008\*](#) and [\*Year Four Report—Fiscal Year 2009\*](#). These and other documents, including an electronic version of this final report with active Internet links, are available on the study Web site at [www.libraryconnectivity.org](http://www.libraryconnectivity.org).

## Goals and Objectives

The goal of the study was to advance the systematic sharing of transportation library resources and best practices and to identify needs for the future. The study was aimed at continuing and expanding upon the work of the Midwest Transportation Knowledge Network, the first regional network of transportation libraries, formed through the efforts of NTL. Objectives of the study, which evolved throughout its five years, included:

- Increase the accessibility of existing transportation resources by helping member libraries enter their holdings in the Online Computer Library Center Transportation Libraries Catalog (TLCat) and participate more extensively in interlibrary loan activities.
- Provide an ongoing opportunity for member librarians, often working alone in small, under-resourced libraries, to connect on a regular basis to share expertise, challenges and successes.
- Advance the professional development of member librarians by supporting their participation in workshops, conferences and educational opportunities.

- Raise awareness among state DOT executives of the need for and value of transportation library services.
- Support marketing and outreach efforts both internally at each library's organization and externally among the wider transportation information community.
- Provide individualized assistance and technical library services through site visits and on-call consulting to help members address problems and expand services.
- Undertake special projects in cooperation with partner organizations.
- Enhance communication between transportation librarians and the transportation research community through partnerships and collaboration with NTL, the AASHTO RAC, the TRB LIST Committee, the SLA Transportation Division and others, including retired transportation librarians.

## Methodology

CTC & Associates LLC was chosen as the consultant to assist members in achieving study goals. CTC employee Maggie Sacco was the full-time technical services librarian for the study throughout its five years. CTC's Kirsten Seeber served in a part-time facilitation and communication role in the final two years. Christie Powers, a communications and marketing consultant, provided part-time services during the first two years of the study in association with the Midwest Regional Transportation Center at the University of Wisconsin–Madison.

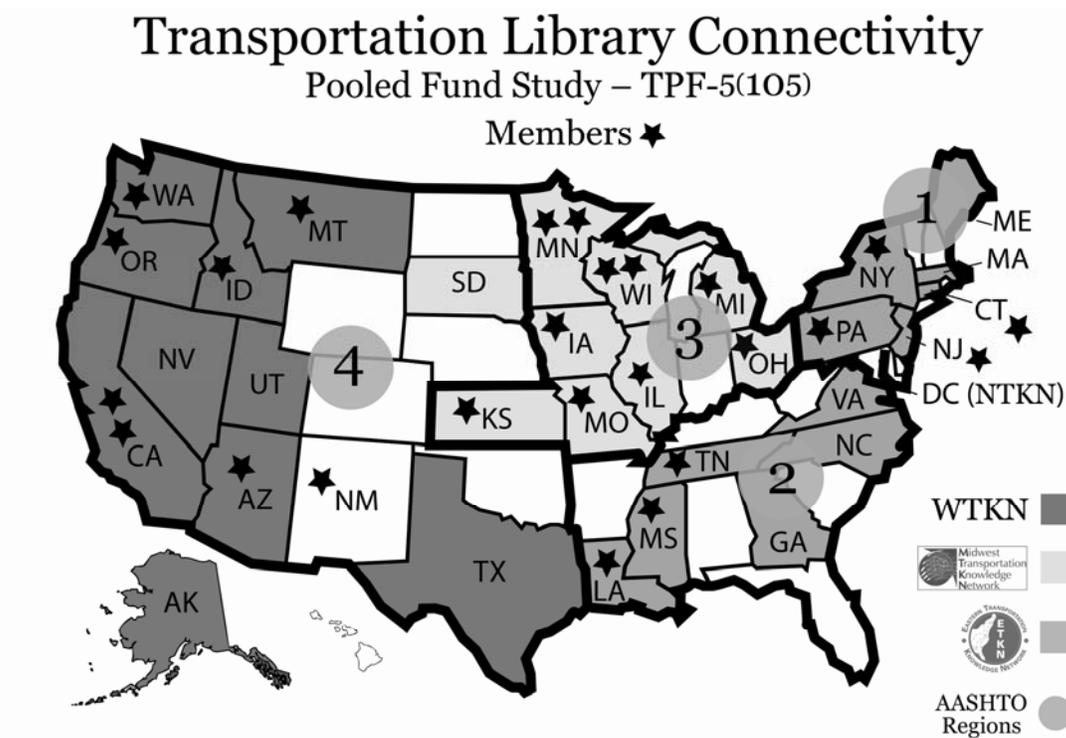
The consultant developed an annual work plan in consultation with the TAC, employing the following methodologies to advance the overall goals of the study:

- **Regular teleconferences** were used to review progress on the annual work plan and to highlight current technology, high-impact services and issues of importance in the transportation library community. These teleconferences also provided communication opportunities between members and encouraged professional development and the sharing of best practices.
- **Periodic informational/educational webinars** presented by various members or contracted speakers addressed topics of interest. These webinars were open to a broad audience of transportation information professionals.
- **Systematic site visits** conducted by the consultant librarian documented the organizational placement, staffing, holdings and services of 19 member libraries. The visits also enabled the consulting librarian to fully understand each library's particular needs. Site visit reports were compiled and posted to the project Web site so that members could get to know their study partners better.
- **Individualized technical consulting** from the consultant was provided to all members on an ongoing basis throughout the course of the study. These services were varied and tailored to the specific needs of each member library.
- **Outreach activities** were aimed at stakeholders and decision makers within transportation agencies to explain the important work their librarians are doing to help agencies fulfill their missions.
- **Special projects** proposed and selected by the TAC, addressed common challenges that needed small amounts of funding.
- **Professional development** was a component of most study activities and a focus of a number of key efforts. In particular, study funding enabled members to attend annual conferences of the SLA and annual meetings of the developing National TKN.
- **Library networking** was facilitated by regular communications among members as well as by special activities such as a library mini-peer exchange.

- A **Web site** was created and maintained throughout the five years to document and communicate a wide range of study information and to serve as a repository for librarian and promotion resources generated by members and others. The Web site offered value to the wider transportation information community as well as study members. See [www.libraryconnectivity.org](http://www.libraryconnectivity.org).

## Member Profiles

The map below shows the location of the 25 study members in relation to the four regions of AASHTO and to the three regional TKNs: the Midwest TKN, Western TKN and Eastern TKN. Most study members are state DOTs, each of which has at least a small library. One member is a metropolitan transportation authority with a library. Two members are university transportation research centers, one with a well-developed library and one without a formal library. Contact information for each study member is listed in Appendix A.



Detailed [reports](#) of the consultant’s site visits to 19 member libraries are available on the study Web site, describing the history, staff, physical space, collection and other information for each library. Photos of the library are included in most reports.

Data from the site visit reports and from supplementary information provided by members is summarized in the Member Library Profiles table on the following pages, illustrating the diversity among study libraries. For example, while most of the libraries are part of the research division of their state DOTs and have online catalogs, staffing levels vary from a single half-time person to six full-time staff, and physical library space ranges from 221 square feet to 5,850 square feet.

**Transportation Library Connectivity Pooled Fund Study  
Member Library Profiles - September 2010**

Library Name	Organizational Placement	FTE Staff	MLS Staff	Facility Sq Ft	Mono-graphs	Serials (Active)	Dedicated Budget	OCLC Symbol	TLCat Subscriber	TKN	Integrated Library System	OPAC	Public Computers	Cataloging	Classification Scheme
Arizona DOT	Research	1	1	900	34,950	75	No	AZF	N	WTKN	InMagic DB Textworks	Yes		In-house	LC
California DOT	Administration/ Business Services	5	4	5,100	50,000	150	Yes	CDT	Y	WTKN	Sydney Plus for MS-SQL; CONTENTdm for digital collections	Intranet only	1	In-house	LC
Connecticut DOT	Executive	1	1	2,100	17,500	150	No	RHT	Y	ETKN	N, WC Local Quick Start	Yes	1	OCLC TechPro	Local
Idaho Trans Dept	Research	1	1	200	Unknown	Unknown	No	IDITD	Y	WTKN	EndNote	No	No	In-house	
Illinois DOT	Policy and Research	1	1	1,680	13,000	200	No	IZA	Y	MTKN	SirsiDynix Horizon Information Portal via RPLS	Yes	1	In-house	Dewey
Iowa DOT	Research	1	1		15,000	250	Yes	UIG	Y	MTKN	SirsiDynix Horizon	Yes	4	In-house	LC
Kansas DOT	Research	1	1		27,000	50	No	KSDOT	Y	MTKN	No	Yes	3	In-house	Local & LC
Los Angeles County Metropolitan Transportation Authority	Human Services	3	3	4,700	48,476	106	No	CRD	Y	WTKN	CyberToolsForLibraries	Yes	11	In-house	LC
Louisiana DOTD	Research	1	1	221	Unknown	Unknown		LADOT	N	ETKN	No	No	6	In-house	LC
Michigan DOT	Research	1	1	2,750	17,700	0	No	EEV	Y	MTKN	CuadraStar	Intranet only	3	Outsourced and OCLC	LC
Minnesota DOT	Research	6	4	5,850	19,000	350	Yes	MDT	Y	MTKN	Exlibris Aleph 500	Yes	3	In-house	LC
Mississippi DOT	Research	0.5			12,546		No	MSMDT	Y	ETKN	EOS.Web	No		In-house	Local
Missouri DOT	Organizational Results	1	1	3,200	12,750	200	No	MODOT	Y	MTKN	III WebPac Pro-MOBIUS consortium	Yes	3	In-house	LC
Montana DOT	Research			250	12,180	1,011	No	DMY	Y	WTKN	SirsiDynix iBistro	Intranet only			LC
New Jersey DOT	Research	2	2	1,018	20,000	70	Yes	TJQ	Y	ETKN	SirsiDynix Horizon via NJ State Library	Yes	1	State library	LC
New Mexico DOT	Research	1	0	600	2,000	4,000	No	NMX	N	WTKN	Liberty3	No	No	In-house	LC
New York DOT	Research	1	1	1,065	12,300	50	No	NY2	Y	ETKN	EOS Web Express	Yes	0	In-house	LC

FTE = Full-time employee

TKN = Transportation Knowledge Network

LC = Library of Congress

TLCAT = Transportation Libraries Catalog

OPAC = Online Public Access Catalog

**Transportation Library Connectivity Pooled Fund Study  
Member Library Profiles - September 2010**

Library Name	Organizational Placement	FTE Staff	MLS Staff	Facility Sq Ft	Mono-graphs	Serials (Active)	Dedicated Budget	OCLC Symbol	TLCat Subscriber	TKN	Integrated Library System	OPAC	Public Computers	Cataloging	Classification Scheme
Ohio DOT	Trans Systems Development	4	1	2,200 + other areas	30,000	260+	No	OHDOT	Y	MTKN	III Millennium	Yes	3	State library	LC
Oregon DOT	Business Services	1	1		14,000	65	No	OTT	Y	WTKN	EOS Web Express	Yes		In-house	Local & Dewey
Pennsylvania DOT	Research & Planning				18,000	230	No	P3T	Y	ETKN		No		In-house	LC
Tennessee DOT	Research			2,500	15,000	100	No		N	ETKN	SydneyPlus for Oracle	No			
Univ of Minnesota	Ctr for Transportation Studies	2	2					MNU	Y	MTKN	Exlibris Aleph 500	Yes			LC
Univ of Wisconsin	No library							WIRUT	N	MTKN		No			
Washington State DOT	Research & Library	2.6	3	1,260 inc.135 storage	22,692	200	Yes	WDT	Y	WTKN	III Millennium; through State Library	Yes	2	State Library; some In-house	Dewey
Wisconsin DOT	Research & Library	1.5	2	2,560 inc. 600 storage	40,000	50	No	WOY	Y	MTKN	Drupal: in development	Yes	5	In-house	LC

FTE = Full-time employee

TKN = Transportation Knowledge Network

LC = Library of Congress

TLCAT = Transportation Libraries Catalog

OPAC = Online Public Access Catalog

MLS Staff = Master's Degree in Library Science or M.L.I.S., Master's Degree in Library & Information Science

## Results and Lessons Learned

The transportation library landscape has undergone significant changes since the study began its work in 2005. Many positive developments have been due at least in part to the work of TPF-5(105). The following timeline of important events and publications prior to and during the time of the Library Connectivity study gives a perspective from which to review the accomplishments below.

Jun 1998	<a href="#">NTL</a> created in U.S. DOT by the Transportation Equity Act for the 21 <sup>st</sup> Century
Oct 1998	<a href="#">Value of Information and Information Services</a> , U.S. DOT
Jun 1999	First meeting of the <a href="#">TRB LIST Committee</a>
Dec 2001	<a href="#">MTKN</a> formed with NTL support
Aug 2002	<a href="#">Midwest Conference on Library and Information Resources for Transportation</a> , Madison, WI
Jun 2003	<a href="#">Scoping Study for a National Strategic Plan for Transportation Information Management</a> , NCHRP
Apr 2004	<a href="#">TLCat</a> launched by OCLC with NTL support
Feb 2005	<i>Transportation in the Information Age: The Leadership &amp; Investment Challenge</i> , <a href="#">brochure</a> and <a href="#">video</a> , Wisconsin DOT
<b>Mar 2005</b>	<b><a href="#">TPF-5(105) Transportation Library Connectivity Pooled Fund Study</a> launched</b>
Aug 2005	NTL reauthorized by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
Jan 2006	<a href="#">Transportation Knowledge Networks: A Management Strategy for the 21<sup>st</sup> Century</a> , TRB Special Report 284
Aug 2007	<a href="#">WTKN</a> formed
Nov 2007	<a href="#">ETKN</a> formed
Dec 2007	<a href="#">Transportation Librarian's Toolkit</a> , TPF-5(105)
Mar 2008	<a href="#">AASHTO RAC TKN Task Force</a> formed with TPF-5(105) support
Jun 2009	1 <sup>st</sup> Annual National TKN Meeting, Washington, D.C.
Sep 2009	<a href="#">Implementing Transportation Knowledge Networks</a> , NCHRP 643
Sep 2009	<a href="#">Transportation Librarian's Toolkit, Second Edition</a> , TPF-5(105)
Jun 2010	2 <sup>nd</sup> Annual National TKN Meeting, New Orleans, La.

### Creation of a National Infrastructure

Study members used their resources to become a prototype national TKN, as proposed in TRB Special Report 284. Features of this infrastructure included providing coordinated communication, sharing of best practices, leveraging resources to help study members, and developing products and projects to benefit the entire transportation library community. Throughout the study, the consultant and study members cultivated a close working relationship with NTL to ensure that activities complemented NTL's strategic goals for a national network.

With staffing and financial support of the pooled fund study and the leadership and initiatives of individual study members, the following positive developments have occurred:

- Formation of regional TKNs encompassing all four AASHTO regions. When the study began, there was only one regional network: MTKN. Through the leadership of study members and

services provided through the study, two additional regional networks were formed: WTKN and ETKN.

- Formation of the AASHTO RAC TKN Task Force. Study members helped initiate formation of the task force through conversations with RAC members, drafting of initial organizational documents, and facilitating and underwriting the initial teleconferences. The TKN Task Force has been an important venue for discussions among state DOT research directors, transportation librarians and other TKN stakeholders.
- Enhanced resource sharing arrangements between state, national and academic transportation libraries.
- Annual National TKN coordination meetings led by NTL and supported by the study. See information on NTL's [Web site](#).
- Diverse participation by transportation libraries, such as those within university transportation centers and county government.

### **Increased Awareness of the Value of Library and Information Services**

The study raised awareness among transportation officials, decision makers and practitioners of the value of robust transportation libraries and the services they provide. Through cooperative partnerships with NTL, AASHTO, TRB and SLA, the study engaged in targeted outreach activities designed to reach stakeholders at the state and national levels. Without the leadership and resources of the study, the broad support for libraries and TKNs outside the library community would not have developed as quickly or to the same extent. Examples include the following:

- Communication and partnerships grew between study member states and national organizations and large universities such as NTL, AASHTO, the TRB LIST Committee, Northwestern University and the University of California at Berkeley, resulting in beneficial projects.
- Struggling libraries are now participating at the regional and national level. Two DOT libraries that were previously eliminated were reinstated by their agencies and are now study members.
- Sponsorship opportunities offered by the study enabled continued participation by two DOT libraries that would not have had the budget on their own.
- Support for a national TKN continues to grow. The study worked to build a relationship with NTL from the very beginning and has maintained a closely coordinated agenda with NTL to help make the national TKN concept a reality. There now appears to be broad support within U.S. DOT's Research and Innovative Technology Administration for a national network. The study helped create the AASHTO RAC TKN Task Force, which has established an open line of communication between state research directors and the library and information community.
- The *Transportation Librarian's Toolkit* developed through the study served a dual purpose: a roadmap for librarians to streamlined, high-impact library services and an effective outreach tool for use with those outside the library community. The *Toolkit* raised awareness of the highly specialized nature of transportation library services and the professional competencies vital to delivering them.
- Study members and consultants contributed several articles to the March/April 2009 issue of *TR News* that underscored the value of library and information services to DOT decision makers.
- Study members and consultants organized and contributed to outreach activities at the TRB annual meetings in 2007, 2009 and 2010 with sponsorship from the TRB LIST Committee. The 2007 panel session, [Transportation Information Revolution: The World at Your Doorstep](#), presented perspectives from decision makers, practitioners and librarians on the value of improved access to relevant information and on early efforts to create a national TKN. Poster sessions in 2009 on [Developments and Innovations in Transportation Libraries and Information Services](#) and in 2010 on [Innovative Applications of Social Media and Web 2.0 Technologies in Transportation Research and Communication](#) highlighted innovative research tools and social media for transportation information professionals.

## **Library Connectivity and Increased Access to Information Resources**

The resources and leadership of the study have led to a systematic increase in connectivity among transportation libraries across the country. This has resulted in increased sharing of best practices among study members and the greater transportation library community. Opportunities included:

- Technology-focused teleconferences highlighting tools and services used in transportation libraries, such as digitization, Web 2.0 and federated search.
- Participation in and topical input to NTL's Transportation Librarians Roundtable series.
- Webinars from Outsell, Inc. about vital library practices such as outreach and marketing of services, strategic planning and return on investment strategies.
- Library Peer Exchange with study members from Michigan DOT, Minnesota DOT, Ohio DOT, Louisiana DOT and Wisconsin DOT. The exchange centered on the challenge of delivering better services with fewer resources in difficult economic times. Topics included access to online resources, IT challenges, core serials subscriptions, maximizing access and use of free resources.

Resource sharing has increased while costs have been lowered. The study provided a mechanism for interested members to obtain subscriptions to key library catalogs using their 100 percent federal funds.

- Subscription fees were paid on member request to OCLC's WorldCat, the largest library catalog with more than 27,000 member libraries and 1 billion holdings worldwide. The result was the addition of several new OCLC subscribers and the continued participation of several existing subscribers, enabling access to the catalog and streamlined cataloging, borrowing and lending among members.
- Subscription fees were also paid on member request to OCLC's TLCat, a transportation subset of WorldCat that was launched in 2004 as a cooperative project of NTL, MTKN and OCLC. Currently TLCat has holdings from 36 transportation libraries. This group catalog allows researchers and librarians to conduct targeted searching of transportation materials and streamlines the borrowing and lending processes.

Special Projects enabled focus on particular needs of study members. Funds for shipping physical materials were supplied by the study for the first three projects listed below. Final reports are included in Appendix B, with additional information on the [special projects](#) page of the study Web site.

- **National TKN Resource Sharing Pilot.** OCLC Resource Sharing subscriptions and FedEx shipping costs were covered for TKN libraries. Metrics on lending and borrowing were compiled for the first time on a national scale, and the University of California at Berkeley and Northwestern University discontinued their previous lending charges to TKN libraries. The project's success has led to the proposed continuation and expansion of the program by Northwestern, UC Berkeley and the Virginia Transportation Research Council.
- **Pilot Expansion of the California Going, Going, Gone ... Program.** G3 is a program of the California Local Technical Assistance Program, administered by the University of California at Berkeley Institute of Transportation Studies, to distribute surplus copies of printed publications to public employees on request. The study funded a pilot project to expand the G3 program to all 50 states by covering shipping costs of materials sent to participants outside California. It is indicative of the challenges involved, including funding, that the G3 pilot served as the closest thing to a true clearinghouse that the transportation library community has seen.
- **Historic ASTM Transfer.** A complete set of historic ASTM standards was rescued from destruction by Washington State DOT Library in cooperation with the Washington State Library and the Federal Highway Administration Turner-Fairbank Highway Research Center Library. The study provided funds to pack and ship the set of standards from 1933 to 1999 from Washington State to a permanent home in the library collection at FHWA in Washington, D.C.
- **Implementation of iCommons Concept (WisDOT).** Additional funding supplied by Wisconsin DOT supported this multi-year effort to use iCommons approaches in a state DOT library.

## Networking and Professional Development for Member Librarians

Participation in key transportation library meetings greatly enhanced professional development opportunities for study members:

- SLA annual meeting and conference for five consecutive years, resulting in record numbers of DOT librarians present at the annual SLA Government Transportation Research Information Committee meeting. Several study members as well as the consultant librarian were active participants in the programming each year.
- Annual meetings of the pooled fund study with programming of national interest. Highlights included a workshop on strategic planning, presentations by members on innovative library services, and exchanges of outreach and marketing materials.
- National TKN meetings in 2009 and 2010. The study worked closely with NTL to plan and execute these meetings. The programs included strategic planning and project brainstorming sessions, updates on reauthorization from RITA administrators and discussion of NCHRP Report 643, *Implementing Transportation Knowledge Networks*.
- The *Transportation Librarian's Toolkit*. Two editions of this handbook, available on the [Resources](#) page of the study Web site, were developed as a collaborative effort of the study consultant and member librarians. The *Toolkit* was designed as a guide for transportation librarians of all experience levels to provide quality library services using the best practices of study member libraries.
- Educational webinars. The study contracted with Outsell, Inc. and Bates Information Services to present topics selected by members. Webinars by Outsell gave practical advice on calculating and presenting the ROI of library services, writing and presenting reports to stakeholders, strategic planning and marketing, and outreach to decision makers. Copyrighted materials from Outsell were made available on the members-only section of the study Web site. Mary Ellen Bates' presentation on Librarians as Change Agents introduced many innovative ways to incorporate value-added library services, including syntheses and trend spotting. A *Transportation Librarian's Toolkit* webinar presented information on space planning, collecting and reporting customer metrics, outreach and delivering essential library services.

## Technical Assistance

The consultant librarian provided study members with customized technical assistance throughout the five-year study. The results were higher quality bibliographic records, improved local workflows, placement of qualified librarians, selection of suitable integrated library systems and increased ability to deal with technical library challenges. Highlights of successes resulting from technical assistance activities include:

- The consultant served as liaison with OCLC and oversaw the often complex subscription process. OCLC agreed to hold pricing at the level of the federal libraries group, FEDLINK, with minimal annual cost increases and no increase for 2009-2010. Many libraries were able to participate in OCLC subscription services that would otherwise not have been able to do so.
- The consultant conducted 19 site visits during the course of the study. [Site visit reports](#) document the size, holdings, staffing, organizational placement and other characteristics of the libraries, providing a comprehensive look at a significant number of state DOT libraries across the country. The visits also enabled the consultant librarian to provide more individualized technical assistance and resulted in greater familiarity and understanding among study members and in the larger transportation library community.
- The consultant helped draft librarian position descriptions for Tennessee DOT and the Louisiana Transportation Resource Center and also assisted in screening interview candidates at LTRC.
- Consultation was provided to the Mississippi DOT on the selection of a new integrated library system. The consultant librarian reviewed software options, clarified the technical language of the Request for Proposal and consulted throughout the implementation process.

## Recommendations

The transportation library landscape has seen significant improvements in recent years, yet there is still much to be done to improve transportation resources and make information widely available, avoid duplication of effort and save parent agencies time and money. These recommendations for continued development of the TKN concept are based on the experiences of study members during the past five years.

**Communication.** Continue to focus on improving communication among librarians and between librarians and research directors. Because of the communication efforts of the Library Connectivity study, the research community gained a better understanding of the highly specialized nature of library services, which are critical to state agency research programs. Coordinate communications efforts with the NTL, regional TKNs and the AASHTO RAC TKN Task Force. The study Web site was a key component of communication efforts along with its listserv, LIBCON-L, hosted by member LTRC at Louisiana State University. Consider moving to a content management framework for the Web site, enabling editing by multiple people, along with integrated messaging and blogging by study members. Continue to explore social networking and other forms of online collaboration while keeping in mind the IT infrastructure needs and security concerns of state DOTs.

**Coordination.** Coordinate pooled fund activities closely with the agendas of NTL; regional TKNs; relevant TRB committees (LIST, Information Services and Data, Conduct of Research and others); SLA Transportation Division; and the AASHTO RAC TKN Task Force. The study made collaboration with these groups a priority, resulting in beneficial outcomes for the transportation libraries and their customers. The transportation information community is expanding and forming an identity; it is important that the libraries and the wider TKN community work collaboratively to define themselves and their mission. Continue and expand collaboration with ex-officio study members representing other federal, state and nonprofit agencies and groups. Consider establishing a designated pooled fund liaison for each of the regional TKNs to act as a conduit to facilitate communication and coordination.

**OCLC and other subscriptions.** Continue an open discussion on the value of OCLC membership. Explore and document the benefits to member libraries (metrics). Continue to pursue the goal of discounted pricing for OCLC and other online subscriptions, potentially through NTL as a larger, more sustainable licensee that might give vendors an incentive to offer discounts. Investigate other valuable tools for librarians and researchers, specifically proprietary databases rich in research findings from the interdisciplinary sciences of the transportation field.

**Technical support.** Continue to provide technical support to study members, who rated this activity as a priority in the development of yearly work plans. Smaller libraries served by only one librarian derive particular benefit from this individualized technical support. Technical support activities include site visits, payment and management of OCLC subscriptions, interfacing with vendors, MARC cataloging consultation, assistance with technical specifications for purchases, and special projects to address specific challenges. Revisit the availability of contract cataloging through the study, which was offered to members but not taken advantage of.

**Professional development.** Continue to offer and promote regular topical meetings, best practices workshops and other online and in-person opportunities to help librarians develop their skills and competencies in helping customers and in demonstrating the value of library and information services to their agencies. Utilize study meetings, teleconferences and webinars, conferences of the SLA Transportation Division, regular NTL Transportation Roundtables and contracted presentations from information industry professionals.

**Outreach.** Continue to use outreach efforts to promote the value of transportation library and information services and regional and national TKNs. Elements of this coordinated effort could include marketing materials, emails to listservs, presentations to DOT administrators, and the development and sharing of training materials such as the *Transportation Librarian's Toolkit*. Consider a librarian ambassador program whereby a study librarian visits an agency without a library and consults with them individually and by group teleconference on how to meet their information needs with the resources available in house and through the pooled fund study, NTL and other libraries. The SLA Transportation Division ambassador program could be used as a model. These efforts should strike a balance between serving the needs of pooled fund study members and those of the wider transportation information community.

**Customer-focused projects.** Develop projects to assess customer and stakeholder needs and directly address those needs. A manageable number of projects achievable at relatively small cost and with high impact would enhance outreach and communication efforts by providing utility to users, proof-of-concept results and demonstrable ROI. Focus areas could include development or enhancement of data and information tools, desktop access to resources and digitization of collections. Projects should be developed with the direct involvement of librarians as front-line users and customer contacts.

**Benchmarking and ROI.** Assist the transportation information community in tailoring library ROI data to measure impact in the transportation environment. A survey of the literature in this area and tools for developing benchmarks to measure transportation library ROI would be very useful. The Outsell, Inc. ROI report and workshop sponsored by TPF-5(105) provide a foundation of good information on the topic that could be built upon in future efforts.

**Data access.** Explore the library's role in providing access to agency information and data that are not directly managed by the library. This emerging topic relates to the need of researchers, technical experts and the public to access data held by the state DOT. The information is often stored in multiple databases on multiple platforms, and managed by different units with the organization. Is there a role of the library in facilitating access to this information in collaboration with those responsible for developing and maintaining it?

**Sustainability.** Explore avenues for continuing and expanding TKNs even if funding is not included in future versions of the Surface Transportation Authorization Act. While AASHTO has included funding for a national TKN and regional TKNs in its recommendation for the next reauthorization, it is not clear that this will become a reality in the near future, or ever. Consider alternate avenues for obtaining significant, sustainable funding for transportation libraries and information professionals within state transportation agencies. At the same time, consider appropriate organizational and leadership models.

## Next Steps

Members of TPF-5(105) held a final annual meeting on September 15, 2010, in Madison, Wisconsin, in conjunction with the MTKN annual meeting. Discussions included a review and closure of the study budget, a retrospective of highlights and accomplishments, a guest speaker and discussion of a new pooled fund study (now in the planning stages under the leadership of Missouri DOT). The recommendations in this report reflect some of the feedback from the members during the meeting. Additional comments can be found in the meeting minutes. See the pooled fund solicitation for [Transportation Library Connectivity and Development](#) for more information.

## Appendix A

<b>Member Contact List</b>		
<b>State/Department</b>	<b>Administrative Liaison</b>	<b>Technical Advisory Committee</b>
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<b>Idaho DOT</b>	Ned Parrish Idaho Transportation Department 3311 W. State Street P.O. Box 7129 Boise, ID 83707-1129 <a href="mailto:ned.parrish@itd.idaho.gov">ned.parrish@itd.idaho.gov</a> (208) 334-8296	Inez Hopkins Idaho Transportation Department 3311 W. State Street P.O. Box 7129 Boise, ID 83707-1129 <a href="mailto:inez.hopkins@itd.idaho.gov">inez.hopkins@itd.idaho.gov</a> (208) 334-8226
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<b>Michigan DOT</b>	Calvin Roberts Michigan DOT Office of Research and Best Practices PO Box 30050, B155 Lansing, MI 48909 <a href="mailto:robertsc@michigan.gov">robertsc@michigan.gov</a> (517) 241-2780	Alexandra Briseno Michigan DOT 425 West Ottawa Street PO Box 30050, B155 Lansing, MI 48909 <a href="mailto:brisenoal@michigan.gov">brisenoal@michigan.gov</a> (517) 373-8548
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<b>Member Contact List</b>		
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## Appendix B

### Special Projects Final Reports

#### Transportation Library Connectivity Pooled Fund Study, TPF-5(105)

#### National TKN Resource Sharing Pilot Project

Prepared by  
Amanda J. Wilson, Director  
National Transportation Library

November 29, 2010

#### Background

In March 2008, the regional Transportation Knowledge Network (TKN) chairs and the National Transportation Library (NTL) proposed a collaborative resources sharing project which sought to formalize combination of ad hoc and formal interlibrary lending/borrowing arrangements between TKN libraries to increase operational efficiency and improve timeliness of information delivery to library users. Ad hoc arrangements typically consist of emailed requests between librarians. The major formal network is WorldCat Resource Sharing (WRS), provided by OCLC, the Online Computer Library Center. Resource sharing is the process through which one library contacts another representing their patron, who needs to borrow an item, and vouching that the item will be borrowed according to the lending library's terms and conditions. This is also called for interlibrary loan (ILL). Libraries engaged in resource sharing save money, space, time, and other resources while supplying their clients the information needed to make smart research and business decisions in a timely manner. No previous study existed for the TKN community on the extent and activity of resource sharing in the transportation community. This study, administered from December 2008-March 2010, fills that gap.

#### Problem Statement

Best practice in determining return on investment (ROI) for resource sharing includes (a) cost savings in terms of employee productivity, (b) cost avoidance in terms of costs not expended to get items by other means, and (c) value added due to material being available. When considering that 15-30% of an employee's time is spent looking for information ([IDC White Paper](#)), that the US Department of Transportation's (USDOT) new [draft strategic plan](#) focuses on data-driven decision-making, and that only about 20% of internet content is accessible to search engines (this [Wikipedia entry](#) is a good start for more information), any measure to increase timely access to high quality information, such as participating in resource sharing networks, has direct payoff to transportation agencies.

This study aimed to reveal whether benefits are actually accrued to TKN member libraries from resource sharing, which presumably enhances their provision of the information needed by their clientele in a timely, efficient and cost-effective manner. Additionally, the findings of the study should indicate next steps to further the development of TKN resource sharing practices. These results are needed to help build a transportation information infrastructure that is strong, flexible and dynamic, and that is ready to support transportation information and resource sharing activities at the national level.

#### Methodology

Data for the study was collected through monthly self-reporting of metrics by participants. The NTL created a [website](#) and [collaborative workspace](#) for the project. The website provided guidance on how to

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participate, what data to collect, and how to report the data. The collaborative workspace was used to capture, visualize, and store project data.

### Data Collection Elements

Anticipated data to be collected in the project set forth in the proposal and actual data collected differed. Interviews with the major library collection managers in transportation revealed that separate reporting of resource sharing activity needed to be minimal to ensure their participation in the project. Because of the existing ad hoc lending practices, not all data could be pulled from the OCLC's WRS tool. Therefore, the data collected captured the basic resource sharing activity of each participating library. The data collected covered (1) amount of requests sent and number received for items from all libraries and breaking out those requested and received from TKN libraries; (2) number of items lent to all libraries, breaking out those lent to TKN libraries; (3) number of items lent to TKN libraries electronically; and (4) number of requests TKN libraries were not able to fill and for what reason. ROI, subject classification of loaned items, and type of customer requesting an item were not captured.

### Procedure

When requesting resources from another library, TKN libraries were to submit their request through OCLC WRS, noting their TKN status in the request form, or to use the form available on the project webpage if a library was not a member of WRS. LSTR (Libraries Sharing Transportation Resources), a cooperative resource sharing group within OCLC, was used to facilitate identification of TKN libraries who owned the needed information resource(s). Partnering with the LSTR group improved efficiency of resources sharing for TKN libraries. If a physical item was lent, the project's FedEx account number was to be used to send an item out and return the item to the original library. Each participating library was asked to capture the statistics of lending items and borrowing items to be reported monthly.

### Limitations

Limitations of this research stem from the data collection method being self-report. Throughout the project, data reporting was low. However, in the last quarter, a push for data entry for the entire pilot cycle resulted in more complete data, particularly from the Midwest Transportation Knowledge Network (MTKN). Also, reporting for those libraries that did no lending or borrowing may not have been fully reported, though that data was desired for the project. Moreover, one of the largest transportation libraries, though an active participant in the project, was unable to report transaction data without undue burden. Finally, the data input process changed over the project cycle, moving from a spreadsheet format to a web input form. The transition caused some confusion which was corrected, however some data may still have been input incorrectly.

## Results and Discussion

For the 17-month resource sharing pilot project, six (6) Eastern Transportation Knowledge Networks (ETKN) libraries, twelve (12) MTKN libraries, and five (5) Western Transportation Knowledge Networks (WTKN) libraries provided at least one resource sharing activity monthly report. Overall 841 items were lent from one TKN to another, while lending of TKN libraries to any library (TKN or non-TKN) reached a total of 6760 items for the project period.

**Table 1. All TKN Libraries Borrowing Activity**

TKN ILL Requests	
ILL requests sent to TKN Libraries	18%
ILL requests sent to non-TKN Libraries	82%
TKN ILLs Received	
ILLs from TKN Libraries	18%
ILLs from non-TKN Libraries	82%

## Appendix B

([Project data](#) is available on the [www.transportationresearch.gov](http://www.transportationresearch.gov) National Transportation Knowledge Network (NTKN) collaborative workspace, as well as [summary visualizations](#) of activity). Table 1 and Table 2 provide an overview of the percentage of resource sharing activity between and among TKNs, as well as with non-TKN libraries.

Financially, a total of \$4758.32 was spent to cover WRS activity for two participating libraries in OCLC and shipping of physical libraries between TKNs. Two special projects impacting spending include the Going, Going, Gone (G3) Expansion pilot project operated out of UC Berkeley’s Institute for Transportation Studies (ITS) Library and the transfer of ASTM standards from Washington State DOT to the FHWA Research Library, costing \$966.22 and \$1994.39, respectively.

A total of 327 monthly reports of TKN resource sharing activities were submitted. MTKN, due to a separate emphasis on performance metrics for libraries, provided the most complete set of statistics, accounting for 54% of the data for the pilot project. Table 3 provides the raw data for the metrics collected for all participants and for MTKN participants to illuminate any strong influences of MTKN resource activity on that of the entire project. Tables 4 and 5 also depict MTKN-specific data for the project.

**Table 2. All TKN Libraries Lending Activity**

TKN Requests Filled	
ILLs lent to TKN Libraries	13%
ILLs lent to non-TKN Libraries	87%
TKN Requests Filled Electronically	
ILLs lent electronically	57%
Items lent by mail	43%
TKN ILL Fill Rates to TKN and non-TKN libraries	
Unfilled lending requests	42%
Filled lending requests	58%

**Table 3. Number of Borrowing, Lending, and Unfilled Requests for All TKN Libraries**

	Total Requests Sent	Total Requests to TKNs	Total Received ILLs	Total Received from TKNs	Total Lent	Total Lent to TKNs	Lent Electronically to TKNs	Total Unfilled Requests
All TKN libraries Total (n=327 monthly rpts)	4,305	762	3719	647	6,760	841	483	2,854
MTKN Total (n=178 monthly rpts)	1,074	130	1087	121	4,569	334	156	1,931

**Table 4. All TKN Libraries Borrowing Activity**

TKN ILL Requests	
ILL requests sent to TKN Libraries	12%
ILL requests sent to non-TKN Libraries	88%
TKN ILLs Received	
ILLs from TKN Libraries	11%
ILLs from non-TKN Libraries	89%

**Table 5. MTKN Libraries Lending Activity**

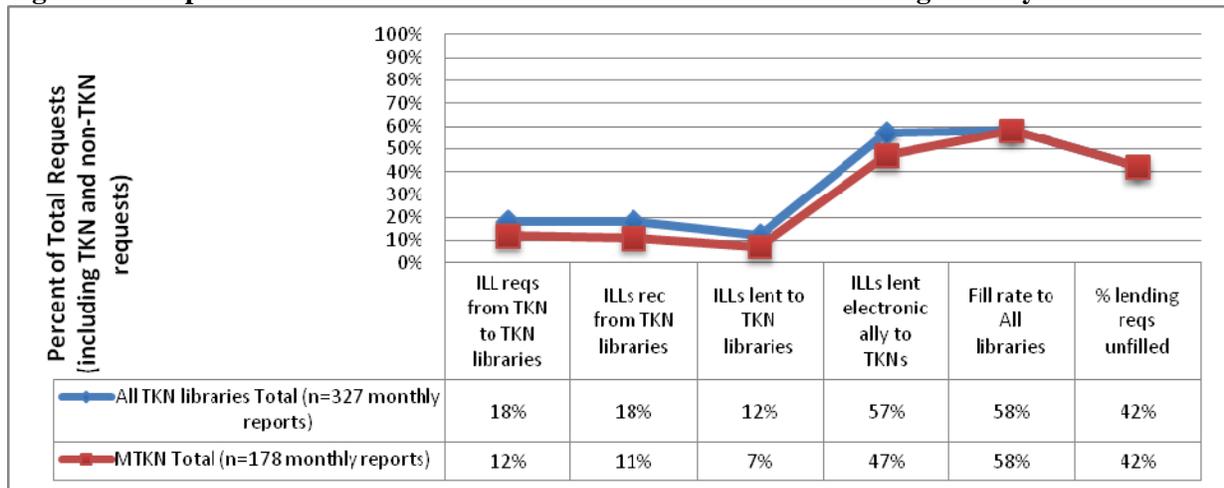
TKN Requests Filled	
ILLs lent to TKN Libraries	7%
ILLs lent to non-TKN Libraries	93%
TKN Requests Filled Electronically	
ILLs lent electronically	47%
Items lent by mail	53%
TKN ILL Fill Rates to TKN and non-TKN libraries	
ILLs lent electronically	47%
Items lent by mail	53%

## Appendix B

### TKN Resource Sharing Trends

Across TKN libraries, resource sharing activity is primarily with non-TKN libraries. Figure 1 illustrates that no more than 1 in 5 ILL requests are sent to TKN libraries and that TKN libraries lend to other TKNs members at one third of that rate. Non-TKN libraries could be other transportation libraries that are not part of the TKN effort or libraries from other disciplines intersecting with the work of transportation professionals.

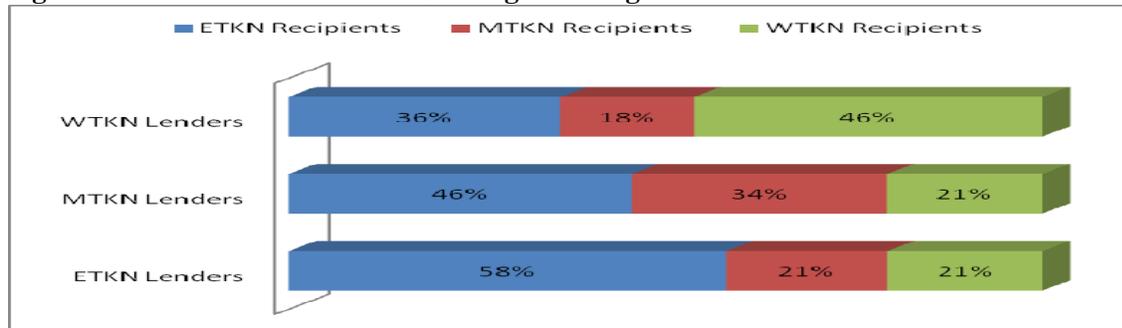
**Figure 1. Comparison of All TKN Libraries and MTKN Resource Sharing Activity**



With TKN to TKN resource sharing, libraries provide items electronically approaching 60% percent of the time. For the majority of requests from any library—almost 60% of the time—TKN libraries meet those needs.

Taking a closer look at resource sharing activity between TKNs (see Figure 2), lending activity occurs across all regions. Interestingly, ETKN libraries lent to themselves more than to the two other regional TKNs combined. This could be due to regionality – items may arrive more quickly when shipped from the same region than other. Northwestern University Transportation Library’s (NUTL) Document Delivery Program, which provides free resources sent electronically to any TKN library, may temper any regionality that could exist among MTKN libraries. To a lesser extent, Berkeley’s ITS Library G3 Expansion project may have also impacted WTKN’s lending trends.

**Figure 2. TKN to TKN Resource Sharing: Lending Within and Across TKNs**

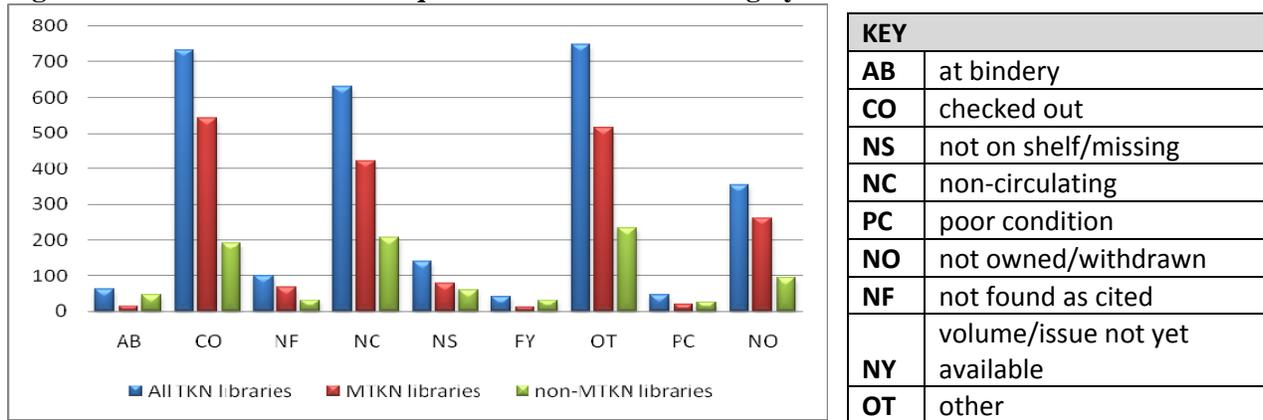


The ability to fulfill requests for items is impacted by a number of factors, ranging from the quality of the information from the requestor to the lending libraries schedule for binding resources or the general popularity of a resource among the lending library’s patrons. TKN libraries reported on 10 potential

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reasons for being unable to fill a request. Figure 3 shows the distribution of unfilled requests for All TKN libraries, MTKN libraries, and non-MTKN libraires. The primary reasons for returning a request unfilled to TKNs and other libraries are that the requested item(s) were either checked out, non-circulating, or not owned. Other reasons beyond the 9 specified and captured account for another sizeable portion of unfilled requests.

**Figure 3. Number of Unfilled Requests for Resource Sharing by Reason**



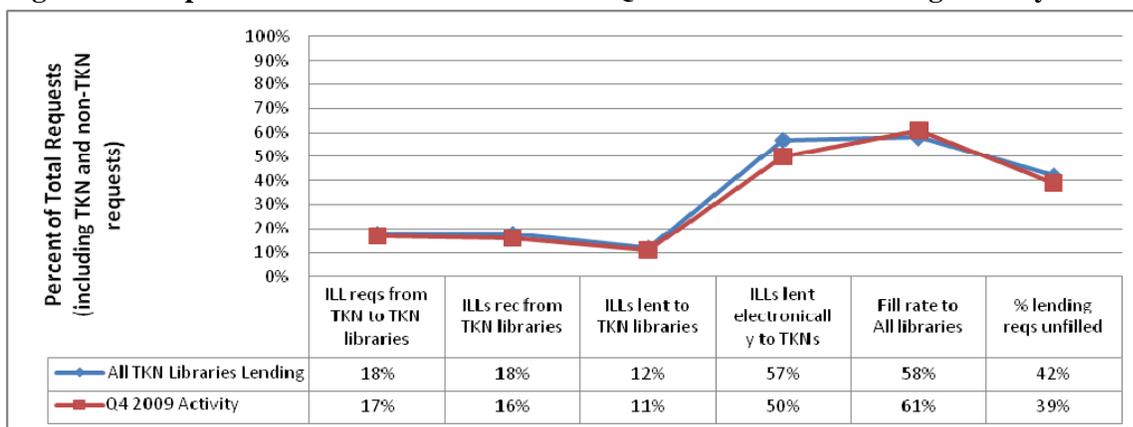
### Resource Sharing in Quarter 4 2009

Quarter 4 (Q4) 2009 of the pilot project was active due to the G3 Expansion pilot and the ASTM standards transfer. Table 6 details the numbers of requests and activity during this quarter. Figure 4 compares the activity of the quarter to that of the entire project. The graph reveals that, although activity during this quarter was the highest compared to other months (over twice the average monthly transactions), Q4 2009 closely mirrors overall pilot project activity.

**Table 6. Comparison of Total Pilot Project and Q4 2009 Resource Sharing Activity**

	Total Requests Sent	Total Requests to TKNs	Total Received ILLs	Total Received from TKNs	Total Lent	Total Lent to TKNs	Lent Electronically to TKNs	Total Unfilled Requests
Q4 2009 Activity	649	113	584	95	1,049	115	57	406

**Figure 4. Comparison of All TKN Libraries and Q4 2009 Resource Sharing Activity**



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### Impact

The National TKN Resource Sharing Pilot Study had three objectives: (1) Reveal whether benefits are actually accrued to TKN member libraries from resource sharing, which presumably enhances their provision of the information needed by their clientele in a timely, efficient and cost-effective manner; (2) indicate next steps to further the development of TKN resource sharing practices; and (3) develop a picture of resource sharing for TKN libraries.

Each of the objectives of the pilot study was achieved in several ways. Value of resource sharing to TKN libraries was demonstrated first by an increase in the number of libraries using OCLC, the standard resource sharing tool, as a result of the project. The project funded two new resource sharing accounts on OCLC for existing TKN libraries. Use of this tool enables more efficient receipt and processing of ILLs, which results in faster services for library patrons.

Second, the NUTL Document Delivery Program and the ITS Library's G3 Expansion were piloted during the study to support TKN resource sharing activity. The two projects in tandem make high quality transportation information even more readily available to TKN member institutions and transportation professionals. NUTL's project provided even more access to their collection and the ITS Library's program emphasized and distributed technical assistance and training materials to even more transportation professionals. NUTL's pilot was made permanent and continued after this study concluded. As two of the largest transportation library collections in the United States, NUTL and ITS Library's contributions add another concrete, tangible benefit to TKN members.

Third, the transfer of ASTM standards was an example of sharing resources that not only prevented a collection from being lost to the community, but increased access. The FHWA Research Library committed to house and catalog the entire collection of ASTM standards transferred from another TKN library. Through cataloging, the collection became available to TKN libraries and the international community of libraries using OCLC for resource sharing. These three high-visible and high valuable projects underscore the value and benefits of library cooperation.

Some next steps to support TKN resource sharing practices were identified, highlighted and/or implemented during project period. LSTR was revitalized and highlighted as another way to streamline ILL requesting and processing in WRS. Also, a [Transportation Librarians Roundtable](#) (TLR) training on best practices for resource sharing was delivered by a NUTL staff member. This resource will be available through the TLR archives.

The *Results and Discussion* section of this document, as well as the project data on [www.transportationresearch.gov](http://www.transportationresearch.gov) provide a snapshot of TKN resource sharing over a 17-month period. This information will remain available for use and further study in the collaborative workspace.

Along with providing a picture of the extent and breadth of TKN resource sharing, the pilot study resulted in some success stories that hint at the future benefit of investment in transportation library resource sharing – increased visibility of and access to transportation resources. Because a majority of TKN items are lent electronically, small fiscal investments in retaining high quality transportation information in the model of the ASTM transfer and supporting major transportation library resource sharing in the model of the G3 expansion would continue to inform decision-making and other activities of transportation professionals.

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### Transportation Library Connectivity Pooled Fund Study, TPF-5(105)

#### G3 Expansion Pilot Final Report

Prepared by  
Rita Evans, Library Director, Institute of Transportation Studies,  
University of California, Berkeley

December 17, 2009

#### Background

The Institute of Transportation Studies Library (ITSL) at the University of California, Berkeley, provides a number of services to public employees in the state of California through its partnership with the California Local Technical Assistance Program (LTAP). CA LTAP is administered by the institute.

One of the services, *Going, Going, Gone...*, distributes surplus copies of printed publications to public employees on request. Employees register with the program and then can browse or search the G3 database for items of interest. They send the request to ITSL and items are shipped at no charge to the person requesting material.

Publications include technical reports from state DOTs, UTCs, and federal agencies; manuals and handbooks; and checklists. Publications are grouped by topic for browsing:

Administration, Management, and Finance	Non-Auto Modes
Bicycles and Pedestrians	Pavement and Highways
Bridges	Safety and Security
Environment	Traffic Engineering and Operations
Intelligent Transportation Systems	Transit
Miscellaneous	Work Zone Safety
Multimodal Planning and Policy	

ITSL was interested in offering the service to public employees outside of California. In 2009, I contacted the TPF-5(105) and the National Transportation Library to request funding for a pilot program to gauge the level of interest. Funds from the National TKN Resource Sharing Network Project were allocated to pay for shipping material outside of California, and ITSL agreed to cover labor and all other administrative costs. Please see the original proposal below.

#### Pilot Program

The pilot ran from October 1 to December 15, 2009. The program was publicized through the regional Transportation Knowledge Networks (Eastern Transportation Knowledge Network, Midwest Transportation Knowledge Network, and Western Transportation Knowledge Network) and TranLib, the discussion list of the Transportation Division of the Special Libraries Association. The website for G3 was updated to reflect the pilot and acknowledge support from TPF-5(105).

During the 10-week pilot, 480 items were sent in fulfillment of requests from 15 states outside of California.

#### Costs

The total expenditures from the TKN Resource Sharing Pilot FedEx shipping account was \$966.22. This account is funded by TPF-5(105).

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Other costs included packaging orders and averaged 30 minutes. Nearly 160 separate orders were processed. Student employees, who handled most of the processing, are paid \$12/hour for a labor cost of about \$1000 for the pilot at the expense of UC Berkeley.

### **Data Analysis**

The Problem Statement for this project estimated a demand of 80-200 items per month. Actual demand was just under 200 items per month.

The volume of requests varied widely by state. Requests were received from 15 states outside of California, leaving 34 states with no requests.

Seven of the states accounted for more than 90% of the 480 requested items. Washington alone accounted for 30%. Of the remaining eight states from which orders were received, none requested more than a dozen items.

The total number of items requested by state varied from 144 from Washington to one from Pennsylvania.

### **Comments and Lessons Learned**

Although the trend to electronic publishing is accelerating, and many reports, manuals and other material are available in a digital format, a strong demand continues to exist for printed publications. Public employees in California have found G3 to be a useful service, and the pilot appears to validate that demand in the wider transportation community.

There does not appear to be any correlation between the number of requests and whether a state is part of a regional TKN. There are no TKN members in Nebraska, Nevada and Hawaii, and about one-third of the total requests came from those three states.

The distribution of the source of requests may reflect how the pilot was promoted. Announcements were made via TranLib, which reaches about 250 subscribers. Information was sent to the chairs of the regional TKNs for distribution to their members; about 50 agencies and organizations, including 28 state DOTs, are TKN members. More comprehensive or consistent marketing of the program could have generated a greater volume of requests from a larger number of states.

During the pilot, several libraries asked if the program could be expanded to allow ITSL to serve as a true clearinghouse for printed material for transportation researchers and practitioners. At present, organizations with duplicate material may post lists of available items to TranLib, but there is no national or international program to facilitate getting this material into the hands of people who can use it. Under a new scenario, organizations would ship their material to ITSL, where it would be entered into the G3 database, made available to public employees, and distributed free of charge upon request. Proposals for such a clearinghouse have been made for at least 40 years. It is indicative of the challenges involved, including funding, that the G3 pilot serves as the closest thing to a true clearinghouse that the community has seen.

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## Appendix B

### FFY 2009 Special Project Proposal Transportation Library Connectivity Pooled Fund Study, TPF-5(105)

- I. **PROBLEM TITLE:** Expansion of California LTAP Duplicate Publication Distribution Program to all states as part of the National TKN Resource Sharing Pilot Project.
- II. **BACKGROUND:** Getting transportation information in the hands of the people who need it requires many different approaches. For several years, California LTAP has provided a service to public employees in the state of California called Going, Going, Gone (G3). G3 distributes duplicate copies of research reports, technical reports, manuals and other publications received by the Institute of Transportation Studies Library (ITSL) at UC Berkeley. Transportation employees access a website to browse current publication titles by topic. They can then order items of interest at no charge.

The current program is funded by CA LTAP and is administered by ITSL. It uses e-commerce software (Xcart) that provides an easy-to-use interface with common features. While many of the publications are available electronically, engineers, researchers and practitioners value access to printed copies for their portability and as desk references. Print and electronic versions of many publications exist side-by-side and access and ease of use depend on format. Many digital resources have restricted user licenses and do not provide mobile applications.

- III. **OBJECTIVES:** In the interest of promoting greater access to transportation information, ITSL would like to expand the program and make G3 available to public employees of any: state DOT; city or county DOT or DPW; transit agency, authority or district; MPO; or any federal agency involved in transportation that is participating in the National TKN Resource Sharing Pilot Project for a six month pilot project from October 1, 2009 -December 15, 2009. The objectives are:
  1. Aid collection development in transportation libraries by facilitating the acquisition of valuable and expensive resources that could not otherwise be purchased.
  2. Create an efficient method of eliminating duplicate materials to create much needed physical space in libraries.
  3. Enable other stakeholders with a strong presence in the transportation industry to acquire much needed relevant transportation information.

No additional funds are needed. The publications themselves are provided free of charge to ITSL. California LTAP will continue to cover administrative costs, including all personnel. TPF-5(105) is being asked to cover postage costs to out-of-state customers as part of the National TKN Resource Sharing Pilot Project. The proposed cost for the 2.5 month pilot is \$3,000.00 from the TKN Resource Sharing FedEx account.

#### IV. SPECIFIC RESULTS, FINDINGS, TOOLS ETC. (DELIVERABLES)

1. Increase the number of duplicates requested and added to other collections. During the past two years, an average of 55 items per month has been distributed to public employees. While it is difficult to project the demand if the program is expanded beyond California, an increase to 80-200 items per month is a reasonable estimate.
2. Discover the topical categories most often being requested, and by what type of agency.
3. Establish a qualitative measure (via embedded 4-5 question survey) to acquire a profile of requestors, whether they are a manager, engineer, IT, etc. and gauge what is most important to practitioners.

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4. Determine the cost savings to users by reporting the total funds used from the TKN Resource Sharing FedEx account.
  5. Quarterly reports including the number of items and agencies, and topic areas.
- V. HOW WILL THE RESULTS BE USED? The results will be disseminated to the NTL, regional TKNs, the AASHTO RAC TKN Task Force and the SLA Transportation Division in a report that they may take to upper transportation management as part of internal outreach and advocacy efforts at the national level.
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## Appendix B

### Transportation Library Connectivity Pooled Fund Study, TPF-5(105)

#### Transfer of Historical ASTM Standards, 1939-1999, from Washington State Library to FHWA Library at Turner-Fairbank Highway Research Center Library Final Report

##### Prepared by

**Kathy Szolomayer, Washington State Department of Transportation and  
Jennifer Boteler, MacroSys, LLC, Federal Highway Administration Research Library  
Turner-Fairbank Highway Research Center**

**December 10, 2009**

Fifty-five boxes of historical ASTM standards covering an approximately 60 year time span were successfully transported across the country from the Washington State Library in Tumwater, WA to the Federal Highway Administration Research Library in McLean, VA, with the support of TPF-5(105) and its TKN Resource Sharing Project FedEx shipping account. The total cost was \$1994.39. Boxes and labor for packing the volumes were provided by librarians from the Washington State Dept. of Transportation (WSDOT). WSDOT is a pooled fund study partner. The transfer was completed in November 2009. Some additional volumes were also contributed by the Idaho Transportation Department, another pooled fund study partner. Unpacking, shelving, and inventorying of the volumes were done by the FHWA Research Library staff. From concept to completion, this project was a collaborative effort of pooled fund and TKN members that directly illustrates the power of networking.

As outlined in the original proposal below, access to historical ASTM standards is problematic due to limited availability of print copies, along with high cost, licensing restrictions and limited coverage in the online environment. The historical standards contain information critical to transportation practitioners, however, so they are a valuable resource. In addition, the FHWA cataloger has added detailed holdings in OCLC so borrowers can easily ascertain if needed standards are available.

By adopting these volumes that would have been discarded, the FHWA Research Library will insure that free access to this information is preserved, while also creating a “one stop shop” for a significant run of the standards, thus achieving the main objectives of this project. Completion of this project represents a very successful outcome that will benefit the transportation information and knowledge management community for many years to come. The Transportation Library Connectivity Pooled Fund Study should be commended for supporting this very worthwhile effort.

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## Appendix B

### FFY 2009 Special Project Proposal Transportation Library Connectivity Pooled Fund Study, TPF-5(105)

- I. **PROBLEM TITLE:** Transfer of Historical ASTM Standards, 1939-1999 from Washington State Library to FHWA Library at Turner-Fairbank Research Center.
- II. **BACKGROUND:** ASTM (originally American Society for Testing and Materials) standards are vital resources used by departments of transportation and other organizations in the transportation sector served by libraries and research centers. If the transportation information community loses ready access to the historical print ASTMs, access to the inactive, historical standards becomes problematic.

Some DOTs subscribe to ASTM standards online through the vendor IHS; others purchase print volumes. As is common in the licensing of online resources, libraries subscribing to IHS are precluded from using the online records for resource sharing. Even if that were not the case, the IHS subscription includes standards from prior to 1986 *only* if the standard is still active. In our collective experience, DOT staff request older standards for a variety of reasons (as do others in the transportation information sector, if an April 24, 2009 posting to TRANLIB seeking “Old ASTM Standard” is any indication). We predict that this need will continue.

To illustrate the ongoing value of historic standards, we offer this compelling evidence from Jennifer Boteler, Managing Librarian at the Federal Highway Administration Research Library:

*In all of the special library jobs I have held, superseded standards have been requested in order for researchers or engineers to know how or why things were done or constructed in the past for maintenance, repair, or replacement issues, and for attorneys and risk managers for liability issues.*

*For instance, the FHWA Research Library helped supply information for the forensic investigation done on the I-35W Minneapolis bridge collapse for several federal offices (DOT OIG, FHWA TFHRC, Congressional Offices, etc.) including tracing the history of 13 ASTM standards and supplying copies of the historical and current standards (35+ standards).*

The Washington State Library is planning to discard their run of ASTM standards (1939-1999). The Washington State Dept. of Transportation (WSDOT) Library does not have the physical space to adopt the collection. The FHWA Research Library at the Turner-Fairbank Highway Research Center has offered to assimilate the collection, but we need to transport the volumes from Tumwater, WA to McLean, VA.

A check of LVIS (Libraries Very Interested in Sharing) and LSTR (Libraries Sharing Transportation Resources) affiliations in WorldCat (for OCLC numbers 5918504, 5828986, 5828994, 5829001) shows ZERO transportation libraries with holdings. Most of the LVIS libraries have incomplete runs. There are no LSTR libraries with holdings. Granted, there may be records with title variations that we didn't check, but our overall sense is that these aren't easily available from reciprocal lenders, and many DOT libraries lack funding to borrow from libraries that charge interlibrary loan fees.

No additional funds are requested. The submitters propose using some of the unused funds set up for TKN Resource Sharing Pilot Project to cover relocation costs for the ASTM historical collection. While an exact cost is not known until the materials are boxed and weighed, a preliminary ballpark estimate is about 74 boxes and 2,890 pounds. If funding can be secured for a shipper to provide boxes, pack, and transport the volumes, that would be our first choice. Our second choice is to secure funding to cover the shipping and WSDOT would provide boxes and labor. Estimates:

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Per US postal service website on 4/24/2009, for library rate: \$1084.84  
(1 box weighing 39 lbs would cost \$14.66 x 74 boxes)  
WSDOT can hire two packers at \$120.00/hour: \$720.00  
(Estimated packing time is 6 hours)  
Total = \$1805 MINIMUM

FedEx ground: Pickup and delivery: \$2532.00, 5-7 business days  
(74 boxes weighing 39 lbs, how with a value of about \$200/box)  
WSDOT providing boxes and labor to pack

### III. OBJECTIVES:

1. Increase the availability of historical ASTM standards to transportation libraries by rescuing a long run of historical standards from disposal and making them a part of the permanent collection at the FHWA Library.
2. Contribute to the goals of increased access of the TKN Resource Sharing project currently underway.

### IV. SPECIFIC RESULTS, FINDINGS, TOOLS, ETC. (DELIVERABLES)

1. Preservation of this valuable collection of ASTM standards.
2. Making the historical ASTMs freely available, as they are of tremendous benefit to the transportation information community, as well as a key element in the development of transportation information infrastructure.
3. Increase efficiency in locating needed standards. Currently the ASTMs are listed in WorldCat under multiple titles and local holdings information is sparse. Adding this historical run to the holdings of the “master record” would save librarians and researchers a great deal of time and effort to have a single, known repository to turn to when an older ASTM standard is needed.

- V. HOW WILL THE RESULTS BE USED? Current and future transportation professionals will have assured access to a valuable historical information resource for research into past practices. Whether it's used for rehabilitating old structures, improving on old designs, examining the structural challenges presented in a particular project, or maintaining existing infrastructure, this type of information will continue to provide critical guidance for transportation practitioners.

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# Wisconsin DOT iCommons

A Physical and Virtual Transportation Learning Center

## Implementing the Information Commons Concept in a State Transportation Agency

OCTOBER 2010



The WisDOT Library was relocated from the eighth floor to the first floor to improve access for employees, business partners and the public.

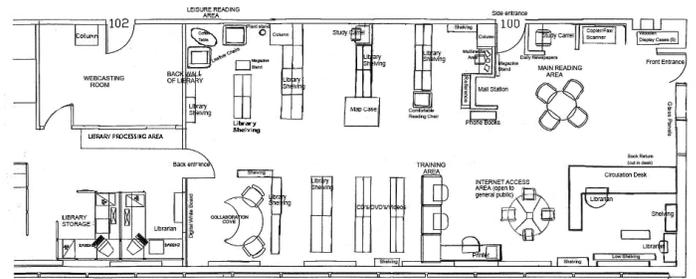
The April 2007 opening of the new WisDOT Library and iCommons Learning Center was the result of many years of outreach and planning efforts by former WisDOT Research Administrator Nina McLawhorn and Head Librarian John Cherney. The Information Commons model, adopted successfully by libraries in the public and academic sectors, offered a way to stimulate innovation and improve performance by expanding staff access to internal and external information in a collaborative work space or “commons.”

Deputy Secretary Ruben Anthony Jr. and Division of Business Management Administrator Brenda Brown championed the iCommons concept and the Library’s move to the first floor as a way to encourage innovation among department employees, in keeping with the department’s vision statement: “Dedicated people creating transportation solutions through innovation and exceptional service.” The iCommons vision realized at WisDOT now facilitates knowledge transfer through the creative use of both physical and virtual collaborative spaces.

### Creating a Physical and Virtual Learning Center

In keeping with iCommons principles, the research effort ran on two tracks—physical and virtual—to increase the accessibility and use of information in a wide variety of forms. A literature search, phone interviews and on-site visits to academic, special, corporate and public libraries provided solid concepts for implementing the iCommons vision. Primary contributors included the University of Wisconsin-Madison, Wisconsin state agency libraries, the Madison Public Library System, hospital and non-profit organization libraries, and the National Institute of Standards and Technology Library in Washington, D.C. Principal work tasks were:

- Redesign library space with ADA-accessible stacks, comfortable seating for individuals and groups, and collaborative work and meeting space.
- Expand physical and virtual collections by integrating collections of main library and satellite locations; expanding online catalog capabilities; and launching digital archive repository projects in cooperation with the University of Wisconsin-Madison, the Wisconsin Department of Public Instruction and Google, Inc.
- Establish computers with user-friendly online access to:
  - \* WisDOT's online catalog and specialized databases, resources from the Wisconsin Department of Public Instruction and other state agencies, and academic and professional journals.
  - \* Design, office and data applications for iCommons users to access for self-service.
- Make Wi-Fi available throughout the iCommons area.
- Provide reference and research services at a physical information desk and through Virtual Librarian Services.
- Incorporate webcasting and webconferencing stations for presenting and recording informational talks and training and for interactive online conferences.
- Make appropriate technology available to staff, such as DVD players for self-training and high-speed digital scanning with the capability to save scans to a network drive.



WisDOT Information Commons  
Floor Plan—revised February 2007



Construction of the new library space was accomplished on a tight budget through extensive use of recycled equipment and materials.



Comfortable seating (above) and collaborative work spaces (below) invite library use.



Surplus state computers were recycled for use at the public Internet station.

### Going Green Keeps Budget Low

Construction of the new library space required close cooperation with WisDOT facility designers, who welcomed the challenge of creating a highly functional iCommons using existing equipment and materials. The results of this cost-conscious approach were expenditures that were only about half of the available budget. Recycled materials include the following:

- The new circulation desk was created by bolting together three used office desks and custom-fitting them with a decorative table top and front panel built in-house. Cost: one-tenth of a library circulation table.
- All shelving was acquired at no cost (from old library and other state agency salvage) and electrostatically painted to give it a new look.
- Carpet tiles, tables, lounge chairs and bookcases were recycled from other WisDOT offices and a state surplus warehouse.
- Surplus state computers were recycled for use at the Internet station (open to the public).

### Creative Use of Resources and Partnerships

The iCommons implementation was financed as a special project within the Library Connectivity Pooled Fund Project, TPF-5(105). The timing of the iCommons implementation enabled WisDOT to leverage other developments:

- Creation of the new Research & Library Unit formally linked the research community and the library/information community.
- Creation of the new Research and Communication Services Section brought together the R&L Unit and other department personnel skilled in the related areas of Web, video production, graphic design and document management.
- Virtual partnerships, made possible through emerging transportation library networks at the regional and national level, accelerated sharing of resources and best practices.

### Measuring the Impacts

The WisDOT Library and iCommons Learning Center continues to evolve. WisDOT statistics show that library and information services to WisDOT customers and the public have expanded significantly. The commitment of WisDOT leadership along with the dedicated work of Library and Research staff have made the following gains possible:

- Walk-in traffic by WisDOT staff and the public has more than tripled, underscoring the importance of the move to the first floor.
- Item checkout from the Library's physical collection has tripled, with increased use of library space for meetings, Web conferences, reading and study.
- Customers of the Division of Motor Vehicles Service Center and Motor Carrier Services Section are accessing Library personnel and services for the first time.
- Librarians are delivering more in-depth reference services, expanding access to department data, archival resources and other information that had not previously been made available.
- Time savings for department personnel are being realized through increased use of on-demand electronic document delivery services using FTP and e-mail.
- Accessible computer terminals for staff and public use have led to greater use of WisDOT digital information resources.

- Greater efficiencies are being attained from the internal and external partnerships: leveraged dollars through pooled funding with other states; improved processes from shared practices; time savings by optimizing specialized expertise; and increased outreach capabilities for the Library through presentations, video and technical support.

### Remaining Challenges

Space and IT restrictions delayed implementation of a few objectives:

- Make the Library 100 percent ADA-accessible (now 85 percent to 90 percent compliant).
- Establish Wi-Fi connectivity.
- Establish a dedicated training area with appropriate self-service software.



John Cherney (right) at the 2009 Transportation Research Board Annual Meeting poster session.

### Telling the WisDOT Library and iCommons Story

Head Librarian John Cherney explained the motivation, planning and execution for the WisDOT iCommons through the following regional and national publications and meetings:

- Spring 2007 issue of *SLANT*, a publication of the Wisconsin Chapter of the Special Libraries Association: [http://units.sla.org/chapter/cwi/slant\\_spring07.pdf](http://units.sla.org/chapter/cwi/slant_spring07.pdf).
- November 2007 online meeting of the Transportation Librarians Roundtable, hosted by the U.S. DOT's National Transportation Library: <http://ntl.bts.gov/networking/tlrarchive/iCommons/>.
- January 2009 poster session at the TRB Annual Meeting: [http://www.libraryconnectivity.org/annualmeetings\\_files/JCherneyWisDOTiCommonsTRBposter\\_jan%2009\\_final.pdf](http://www.libraryconnectivity.org/annualmeetings_files/JCherneyWisDOTiCommonsTRBposter_jan%2009_final.pdf).
- September 2010 interview for the recently published book, *Facelifts for Special Libraries: A Practical Guide to Revitalizing Diverse Physical and Digital Spaces*, Chandos Publishing.

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