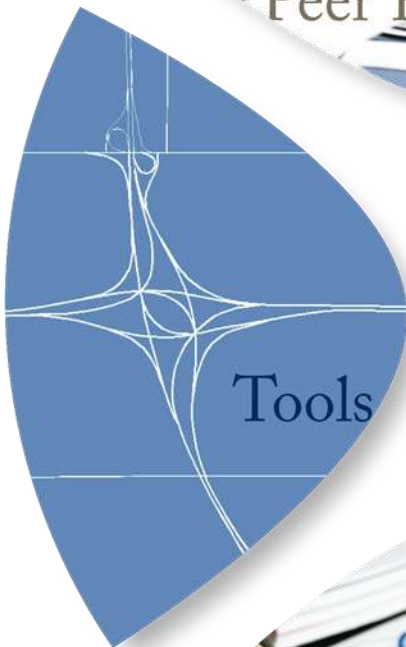


# TMIP Annual Report

## May – September 2012

APRIL 2013



Better Methods. Better Outcomes.



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Better Methods. Better Outcomes.

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## Better Methods. Better Outcomes.

### *Who We Are*

The Travel Model Improvement Program (TMIP) has conducted research, provided technical assistance, and delivered training to state, regional, and local transportation planning professionals since 1994. Much has changed since TMIP's conception, with shifts in transport policy, advances in modeling theories, and progressions in practical lessons. Throughout, TMIP has worked to advance modeling capabilities and support transportation professionals as they learn from the past and respond to current and future challenges. Today, TMIP continues its mission of improving analysis practices to ensure that transportation professionals are well equipped to inform and support strategic transportation decisions. Currently, TMIP is funded by the Federal Highway Administration's Office of Planning, Environment and Realty's Surface Transportation Environment and Planning Cooperative Research Program (STEP).

### *What We Do*

TMIP shares many of its objectives with other stakeholder groups and national organizations. TMIP works cooperatively with the Metropolitan Capacity Building Program (MCB), which is focused on enhancing the capabilities of State and local transportation staffs to meet planning requirements and needs. TMIP also works with the Association of Metropolitan Planning Organizations (AMPO) and the American Association of State Highway and Transportation Officials (AASHTO).

Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law on July 6, 2012. The bill funds surface transportation programs at over \$105 billion for fiscal years (FY) 2013 and 2014. MAP-21 emphasizes performance-based approaches. TMIP has updated its vision, mission, core values and strategic goals to support the FHWA's responsibility to meet new planning and programming requirement in MAP 21.

### *TMIP Vision*

TMIP provides technical support and promotes knowledge and information exchange in the transportation planning and modeling community.

### *TMIP Mission*

TMIP helps transportation planners provide better information through effective use of quantitative methods and tools.

### *TMIP Core Values*

TMIP values collaboration, innovation and education.

### *TMIP Strategic Goals*

**Outreach:** Get transportation planning research into practice and promote best practices in travel data analyses and quantitative methods application.

**Agency Support:** Build transportation planning agencies institutional capacity to effectively apply analytical tools in the transportation planning decision-making process.

**Tool Enhancement:** Develop the Toolbox as a comprehensive desk reference for applying travel analysis tools to support data driven, performance-based transportation planning.

## Program Highlights

Between May and September 2012, TMIP established a set of strategic goals to guide its future activities and initiatives. Additionally, TMIP staff outlined and accelerated the execution of eight major programs, summarized in the table below.

**Table 1: TMIP Major Initiatives**

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**Webinars:** a virtual forum for transportation planning agencies and stakeholders to share insights and experiences. Webinars include both Workshops Over the Web (WOWs) and Web Knowledge and Information Exchange (WKIEs) on relevant topics to the transportation planning community. Seven (7) webinars were convened during the performance period with an average of 97 participants per session.

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**Peer Review Program:** a program in which planning agencies collaborate with an expert peer review panel to review their data, methods, and planning models to ensure that their technical processes and tools meet analysis needs. Three (3) peer reviews were conducted during the performance period: Thurston Regional Planning Council, San Francisco County Transportation Authority, and Georgia Department of Transportation.

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**At A Glance Series:** a series of concise brochures pertaining to transportation analysis, modeling, and simulation related topics for distribution to the TMIP Community. The first At A Glance Series brochure was developed in this performance period on activity-based modeling resources and practices.

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**TMIP Talks Initiative:** a series of brief presentations made by prominent professionals in the field of transportation planning on topics serving TMIP's goals and objectives. The development of design elements for TMIP Talks presentations and a list of expert professionals for potential participation were developed during the performance period.

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**TMIP Report Series:** an initiative to disseminate information related to transportation modeling, simulation, and analysis through the publication of reports, case studies, and exemplary models and technical documentation. During the performance period, the TMIP Agency Snapshot Report Series was initiated, which included the completion of the first draft of Vermont Agency of Transportation Report.

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**TMIP Planning Analysis Toolbox:** a reference for the selection and application of analytical tools and methods to support data driven, performance-based transportation planning. During the performance period, initial Toolbox development activities were conducted, including a kick-off meeting, and the development of a draft conceptual design and work plan.

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**TMIP Online Community of Practice (TMIP|COP):** a complementary community resource to the Transportation Research Board's Travel Forecasting Resource for surface transportation modeling, simulation and analysis discussion, documentation, and capacity building. It includes the management of the TMIP email list with approximately 1,600 subscribers. During the performance period, progress included hosting TMIP transitional website, creating new content and pages, providing technical assistance to TMIP user community members, and attracting 6,671 unique visitors between May 1 and September 30. In addition, 172 email messages were exchanged through the TMIP-L email list.

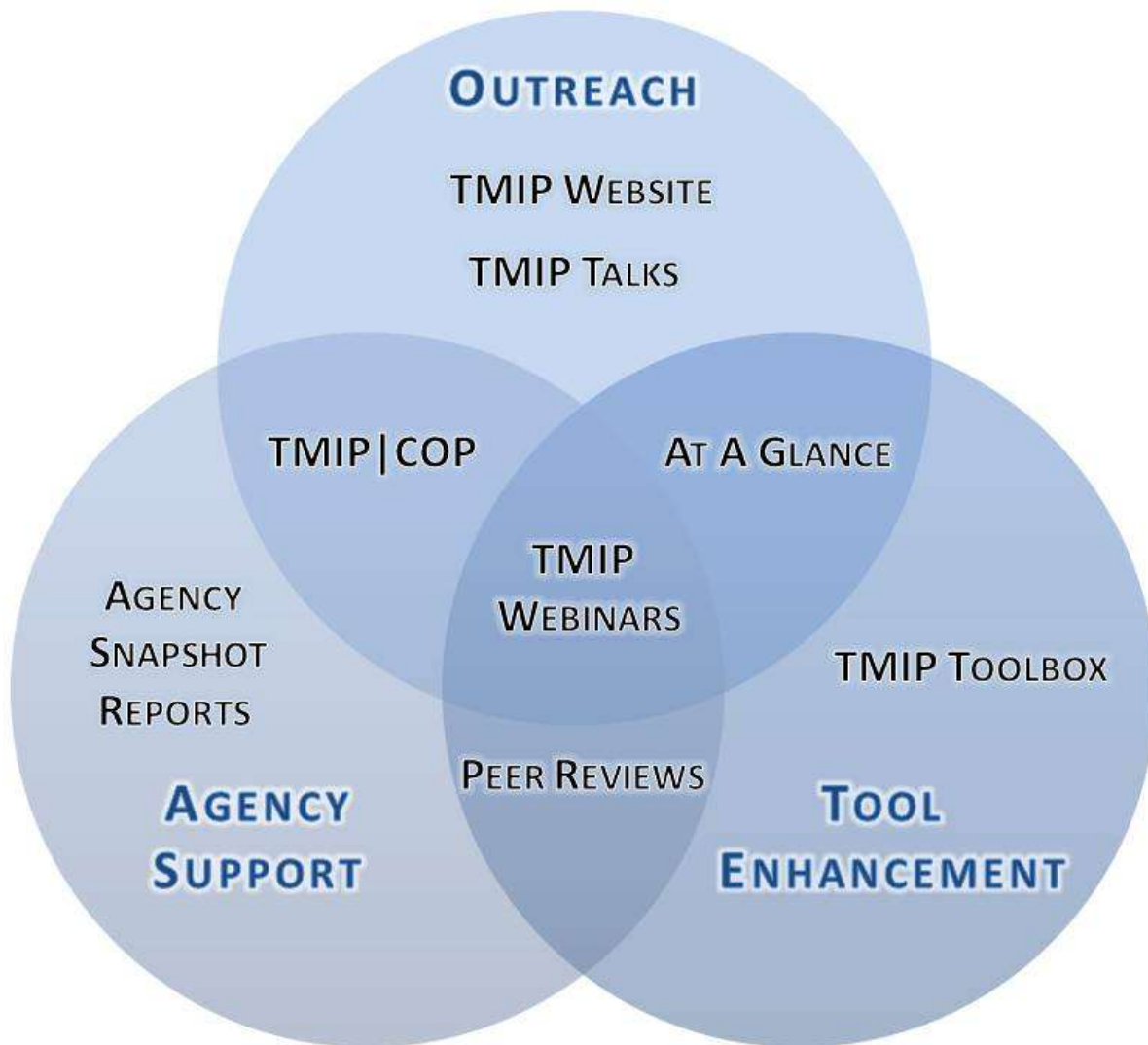
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**TMIP Website:** the website is TMIP's primary web-presence. Significant enhancements were made during the performance period, including the incorporation of an enhanced logo and program branding. The website experienced 34,767 unique visitors during the performance period.

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The diagram in Figure 1 illustrates how each of the major initiatives addresses at least one of the TMIP strategic goals to aid in achieving TMIP's vision and mission. Each of these initiatives will be described further in the following section.

Figure 1: TMIP Initiative and Strategic Goals





## TMIP Webinars

In order to support TMIP's mission and goals, two categories of web-delivered seminars ("webinars") were designed: (1) the Web Knowledge and Information Exchange (WKIE), in which a particular agency or professional communicates a specific project or subject related experience, and (2) Workshops Over the Web (WOW) webinars, which involve technical subject matter capacity building.

WKIE webinars provide a nationwide virtual platform on which stakeholders may impart knowledge and insight from relevant experiences. WKIE webinars are held on current topics of interest to the transportation modeling, simulation, and analysis community. WKIE is comprised of both one-day webinars and multi-day webinar series.

WOW webinars are typically conducted as a multi-day series, organized for highly complex topics, such as Land Use and Activity-Based Modeling, which were delivered as eight and twelve part sessions respectively.

TMIP records all sponsored webinars and makes the content available to users in the Recorded Webinar section of the TMIP Online Community of Practice (TMIP|COP) available at: <http://tmiponline.org/Clearinghouse/Item-Types/Recorded-Webinar.aspx>.

Audio-video recordings and an Instructor's Manual including all of the presentation slides in the series with complete speaker notes and written transcripts of the questions and answers from each session are available for download on the TMIP|COP website. There are currently more than fifty recorded webinars on many different topics related to transportation planning which range from one to two and a half hours in length in the TMIP webinar archive.

### *Performance Period Accomplishments*

Metropolitan planning organizations (MPOs) are required by Federal Law to develop regional transportation plans through the estimation of future travel supply and demand, and the analysis of transportation investment impacts. Emerging issues such as road pricing, peak spreading, climate change, non-motorized travel, mixed land use, and freight movement have prompted the need for advanced modeling practices such as activity based modeling.

A WOW webinar series was developed to provide a comprehensive resource on activity-based modeling that has and will continue to benefit the travel modeling community and those whom it serves by compiling and providing access to basic technical documentation and providing nontechnical resources to meet the immediate needs of MPO staff.

During the performance period (*May–September 2012*), seven webinars were convened as part of this broader twelve session instructional series on activity-based modeling. Participation in each of the seven sessions varied but typically was close to the maximum of one-hundred meeting room connections permitted by the regular FHWA license.



## *Contributions to Program*

The Activity Based Modeling Webinar series was comprised of presentations from a variety of professionals leading the state of the practice in activity based modeling. The webinars reached a significant portion of the TMIP Community with over 1,350 participants during the course of the series. The recorded webinar sessions are also available online and may serve as a source of reference, information, and expert advice for agencies planning to undertake activity based modeling endeavors. Table 2 provides more details on the seven sessions held in this performance period.

**Table 2: Activity-Based Modeling Webinar Sessions, Participants, Dates**

<b>Session Title</b>	<b>Participants</b>	<b>Date</b>
Accessibility and Treatment of Space	96	5/17/2012
Long-Term Location and Mobility Models	81	6/7/2012
Activity Pattern Generation	87	6/28/2012
Scheduling and Time of Day Choice	109	7/19/2012
Tour Mode, Intermediate Stop Location, Trip Mode	92	8/9/2012
Network Integration	117	8/30/2012
Forecasting, Performance Measures and Software	99	9/20/2012

These seven webinars played a unique role in achieving TMIP's mission by filling a pressing need for information regarding activity based modeling practices. A number of agencies have developed or are developing activity based models, and agency staff members require technical training to manage or apply these models in actual projects. The pragmatic delivery of the highly technical information in the webinar sessions facilitates an ease in understanding the complex subject matter.

A large number of agencies responded with positive feedback in the evaluation polls conducted at the end of each individual webinar session. One agency participant wrote "A very good session. I hope to see these types of webinars regarding activity based and/or agent based demand modeling more often."

## Peer Review Program

The Peer Review Program began in April 2003 with the objective of providing:

- Assistance from peer experts to improve forecast models in high-priority areas;
- Advice on how to proceed with model improvement activities;
- Recommendations on known modeling weaknesses; and
- Comments and advice for modeling prospective policy initiatives.

TMIP works collaboratively with the transportation modeling community to improve information sharing and support the best available tools, data, and methods. The purpose of the Peer Review Program is to facilitate a process whereby leading practitioners in the fields of transportation, land-use, and air quality planning and modeling can provide guidance to ensure agencies are developing technical tools, procedures, and processes that meet an agency's needs while also satisfying Federal, state, and local planning requirements. TMIP's Peer Review Program provides an agency with the opportunity to elicit recommendations for addressing its current modeling challenges and those expected to arise due to growth and/or transportation policy changes.

TMIP supports peer reviews by assisting agencies in subject-specific panel assembly, logistics, and funding; documentation of the peer review meetings; and preparation of a final report which summarizes the review for the host agency. Web-conference technology is now also used in some cases to convene part of the peer review as a virtual pre-meeting in addition to the day-long meetings held in person at the host agency. Peer reviews are customized to meet the specific needs of the host agency but generally consist of the following elements:

- A one- to two-day meeting with four or five travel modeling experts, host agency planning staff, and other stakeholders;
- Documentation of the agency's model for panelists to review before the meeting;
- Questions or issues for peer panelists to address in their recommendations;
- A final report on the peer review meeting that includes all details and recommendations for tools and their application obtained during the peer review meetings;
- An action plan developed by the host agency in response to the peer recommendations;
- Implementation of recommendations from the host agency; and
- Self-evaluation of progress by the host agency, which may be submitted to TMIP for review.

### *Performance Period Accomplishments*

During the performance period, three (3) peer reviews were convened. Table 3 provides the details on the date and location.

- **Thurston Regional Planning Council** (*Olympia, Washington*)  
The Thurston Regional Planning Council (TRPC) is an MPO with a population over 256,000. The Thurston region has experienced significant growth and demographic change since the current model was first developed. A new household travel survey will be conducted in the fall of 2012 to collect data on the current demographic characteristics and travel behavior in the region. TRPC will be updating its base year and forecast year travel demand models using, among other resources, the new household survey.

The TRPC's overall goal for seeking a TMIP peer review was to receive a transparent, un-biased, external expert review to inform its model update work. TRPC hoped that a TMIP peer review would help ensure that the agency's model improvements will be representative of the state-of-the-practice in travel demand modeling. Having a state-of-the-practice model is a TRPC agency goal and in the interest of its regional partners.

- **San Francisco County Transportation Authority** (*San Francisco, California*)

The San Francisco County Transportation Authority (SFCTA) is the designated Congestion Management Agency of San Francisco County, which has a population of over 800,000. SFCTA is also responsible for maintaining San Francisco's official travel demand model: SF-CHAMP (San Francisco's Chained Activity Modeling Process). The SF-CHAMP model is an activity-based travel demand model that analyzes travel behavior decisions across multiple dimensions and is capable of evaluating a multitude of policies and investments based on how these policies and investments change various attributes of travel between two points in the region for a given time of day. The macroscopic static user equilibrium model within SF-CHAMP required improvements with respect to the nuances of congestion in the city, which resulted in the award of an FHWA grant to implement a dynamic traffic assignment (DTA) model. The project team identified the following areas of questioning and discussion for the peer review panel partway through the project:

- Calibration of DTA and SF-CHAMP model sensitivity to changes such as network geometry, signal control, and demand;
- Appropriate validation standards on the data and model side;
- Integration strategies for feeding back various aspects of network level of service to the SF-CHAMP activity-based demand model; and
- Useful forms of technology transfer for the lessons that have been learned and code developed

The SFCTA viewed the peer review panel as an opportunity to learn about strategies and techniques being employed in other areas across the country and world and to make their investments in documentation and code more useful to the county.

- **Georgia Department of Transportation** (*Atlanta, Georgia*)

Georgia contains one-hundred fifty-nine (159) counties and fifteen (15) MPOs with a population of just over 9.9 million. The primary ambition for the GDOT modeling team's application for participation in the TMIP Peer Review Program was to obtain feedback prior to the 2010 model base year update. GDOT requested an expert review panel with hands-on statewide multi-modal model experience to provide constructive comments that would allow GDOT to improve the GSTDM and gain insight regarding the model's ability to inform policy-level issues. The GDOT modeling team's objective for the peer review meeting was to facilitate a venue through which the panel members could identify the limitations and deficiencies of the model and identify strategies for resolving any such limitations.

The host agencies and dates of the peer review meetings convened during the reporting period are listed below.

Table 3: Peer Review Meetings by Agency

Host Agency	Acronym	Virtual Pre-Meeting	In-Person Meeting
Thurston Regional Planning Commission	TRPC	6/8/2012	6/11/2012
San Francisco County Transportation Authority	SFCTA	n/a	7/25/2012
Georgia Department of Transportation	GDOT	8/3/2012	9/5/2012

The complete reports for each of the three Peer Review Panels conducted during the reporting period are available on the TMIP website, and can be accessed via:

[http://www.fhwa.dot.gov/planning/tmip/resources/peer\\_review\\_program/#](http://www.fhwa.dot.gov/planning/tmip/resources/peer_review_program/#)

### *Contributions to Program*

The Peer Review Program has been successful in creating a reputable venue for agencies to receive customized assistance in the development of their planning tools and tool applications. Panel members have proven effective in helping agencies to identify issues and provide feasible solutions, resulting in targeted and specific short and long-term recommendations to guide major model improvement efforts. Additionally, the Peer Review Program not only delivers needed technical advice to the host agencies but also provides TMIP an opportunity to keep a pulse on the varying needs of state, regional, or local agencies.

Documentation of the peer review meetings, discussions, recommendations, implementation strategies, and post-review evaluations is not only useful to the host agency but also serves as a valuable resource to agencies with similar models, methodologies, or transportation concerns. By making these materials available, TMIP provides another resource to state, regional, and local agencies regarding travel model improvement and enhancement. These agency-based reports are particularly valuable as they present actual modeling scenarios in a familiar context for MPOs, state departments, and similar agencies. Furthermore, the TMIP Peer Review Program plays an important role in promoting best practice in transportation planning analysis, modeling, and simulation.

## At A Glance Series

TMIP designed the At A Glance Series to provide an easy-to-read reference on transportation analysis, modeling and simulation related topics. The At A Glance series is scheduled to be released quarterly and published as brochures for distribution to the TMIP community.

### *Performance Period Accomplishments*

The inaugural TMIP At A Glance brochure entitled “Activity Based Modeling Resources” is a two-page brochure with a focus on Activity-Based Modeling initiatives. The brochure was completed in the performance period and but distributed to the TMIP Community in October 2012 using the FHWA Office of Planning, Environment and Realty’s new GovDelivery service. The Activity Based Modeling Resources At A Glance document is available for download at:

[http://content.govdelivery.com/attachments/USDOTFHWAHEP/2012/10/15/file\\_attachments/167762/Activity-Based-Modeling\\_Resources\\_At-A-Glance.pdf](http://content.govdelivery.com/attachments/USDOTFHWAHEP/2012/10/15/file_attachments/167762/Activity-Based-Modeling_Resources_At-A-Glance.pdf)

### *Contributions to Program*

The At A Glance brochure is another initiative that complements current TMIP activities. It serves as a compact resource providing a comprehensive, quick reference on important topics to the TMIP Community. By highlighting relevant topics and providing a “30,000-foot view,” the brochures are well-suited for organizing technical information in an easy to read way.

The activity based modeling brochure produced during the May to September 2012 performance period has been well-received by the TMIP Community. The brochure functions as an informative handout for distribution to community members with little to no exposure to activity based modeling, while it also includes the latest and most relevant references and guidance for community members with existing knowledge of the practice. This specific At A Glance brochure is able to save TMIP Community members’ time by pointing them directly to the activity based modeling resources and publications their planning efforts may require.

## TMIP Talks Initiative

Twice a year, TMIP will invite prominent professionals in the field of transportation planning to give short presentations on a topic of their choosing which aligns with TMIP's goals and objectives. These 10-15 minute talks will address a wide range of topics and provide the user community with access to some of the industry's most important leaders, policy-makers, and practitioners. The intent of the TMIP Talks Initiative is to facilitate the engagement of esteemed members of the technical community in constructive discussions with the TMIP Community regarding high priority issues and policies.

### *Performance Period Accomplishments*

Activity in the performance period focused on the development of design elements for the TMIP Talks product offering. Additionally, a list of industry experts in consideration for participation in the TMIP Talks program was created. The list of potential participants includes:

- Eric Miller,
- Keith Lawton,
- Michael Wegene,r
- Frank Koppelman,
- Joe Schofer,
- Andrew Daily,
- Moshe Ben Akiva,
- Kara Kockelman,
- Hani Mahmassani, and
- Chandra Bhat.

### *Contributions to Program*

TMIP Talks complements other activities in the TMIP Program by providing access to professionals and promoting conversation across the entire TMIP Community simultaneously. The basis of these short and targeted TMIP Talks is to provide food for thought to members of the TMIP Community and facilitate focused discussion on emerging issues and challenges in the transportation modeling and analysis community that will inform agency practices and decision-making.

## TMIP Agency Snapshot Report Series

The objective of the TMIP Agency Snapshot Report Series is to facilitate the sharing of agency practices in selecting and applying analytical tools and methods to support data driven, performance-based transportation planning. The Agency Snapshot Report Series identifies the data; analysis tools; resources necessary to develop, use, and maintain both the data and analysis tools; and the planning processes from which these data and analysis tools are utilized for each showcased agency. The series promotes tool enhancement by illustrating new, innovative, and exemplary practices. The Agency Snapshot Report Series will showcase agency successes that provide information and examples to help other agencies thoughtfully identify the best available data, tools, and methods to meet their agency's analytical needs.

### *Performance Period Accomplishments*

During the performance period, the major activity was the initiation of the TMIP Agency Snapshot Report Series. The first Agency Snapshot Report featuring the Vermont Agency of Transportation (VTrans) was initiated. Some work to assess the feasibility of showcasing the Georgia Department of Transportation (GDOT) as the second Agency Snapshot was also performed.

### *Contributions to Program*

An important element of the overall TMIP Program is technology transfer. The Agency Snapshot Report Series initiative accomplishes this by facilitating applied research related to transportation modeling, simulation, and analysis through tasks such as publishing reports and articles, conducting and publishing applied case studies, and providing working examples of models and technical documents.

The Agency Snapshot Report Series presents an opportunity to provide more comprehensive and detailed information regarding technical data preparation and data analysis in the context of a real world agency. In particular, through this report series, TMIP will be able to promote best practices in the following areas:

- Data agencies collect and utilize to support planning;
- Analysis tools and methods used by agencies;
- Resources necessary to develop, use and maintain data and tools;
- Where in agency planning processes these data and tools are utilized;
- Agency experience related to performance measurement and prediction; and
- Emerging issues and challenges facing agencies.



## TMIP Planning Analysis Toolbox

The objective of the Planning Analysis Toolbox (the Toolbox) is to be a comprehensive reference resource for the selection and application of analytical tools and quantitative methods to support data driven, performance-based transportation planning incorporating principles of risk management. The goal of the Toolbox is not to identify a single or even a set of ideal tools, but rather to provide processes, information, and examples to help agencies thoughtfully identify the appropriate tools and methods for their analytical needs with careful consideration of the data available and the issues and risks involved. The Toolbox will serve as a reference for the comprehensive consideration of planning tools for forecasting travel, environmental, economic, and social/community impacts, as well as project cost and prioritization. The Toolbox will be comprised of several volumes containing a variety of helpful and important information pertaining to planning analysis and the array of tools to support it.

The Toolbox supports USDOT's mission to advocate solutions to planning and programming needs by building capacity among state, regional, and local agencies in the area of technical tools. Addressing this mission has always been the goal of the Toolbox and will be done efficiently and effectively by partnering with other USDOT and TRB programs to leverage research efforts and guidance on technical methods for the analysis of topics including: livability measurement, performance-based transportation planning, environment impact assessment, traffic analysis and forecasting, and risk management.

### *Performance Period Accomplishments*

The Toolbox project began in late August 2012, near the end of the FHWA fiscal year (9/30/2012). Therefore, the accomplishments for the performance period consist of start-up activities including: a review of related tools, literature, and recent and current efforts by FHWA; an in-person Kick-Off meeting at FHWA headquarters; and the development of a preliminary draft conceptual design and work plan.

### *Contributions to Program*

The Toolbox will be a critical resource for the TMIP Community, providing information on the various tools and quantitative methods used in planning analysis. The groundwork performed in this period provides a solid foundation for the initiation of the Toolbox effort. The drafting of a specific and detail-oriented work plan minimizes the potential risk of multiple, costly corrections throughout the course of the Toolbox's development and helps to ensure the successful completion of the project in a timely and efficient manner.

## TMIP Online Community of Practice

The TMIP Online Community of Practice (TMIP|COP) (<http://tmiponline.org/>) includes the management of the TMIP email list, but is also an extension and enhancement of the TMIP email list. The intent of TMIP|COP is to specifically provide an online forum for resources and knowledge exchange between TMIP Community Members. The TMIP|COP also includes an Ask-The-Expert live technical assistance service allowing members of the users' community to either live-chat or email the TMIP expert with their technical questions. The TMIP|COP can be viewed as a complement to the Transportation Research Board's Travel Forecasting Resource (<http://www.tfresource.org/>). Figure 2 is a screenshot of the TMIP|COP home page.

Figure 2: TMIP Online Community of Practice



A prominent component of the TMIP|COP is the TMIP-L email list. TMIP maintains the email list to promote the open discussion of issues related to transportation modeling, simulation and analysis. The email list has over 1,600 subscribers representing travel forecasting professionals from around the globe.

### *Performance Period Accomplishments*

Accomplishments during the May–September 2012 performance period involved: hosting and maintaining the TMIP|COP, hosting and maintaining the TMIP-L email list, and providing virtual technical assistance. These accomplishments are detailed in the following subsections, respectively.

## Hosting and Maintaining the TMIP|COP

Google Analytics were used to produce site analytics and standard reports of activity on the TMIP|COP website. The overall usage of the TMIP|COP during the reporting period is summarized as follows:

- 6,671 unique visitors between May 1 and September 30
  - *75% of the unique visitors were from within the United States*
  - *The average visit duration was approximately 7 minutes*
- 18,797 page views between May 1 and September 30 (see Table 4 below)
  - *The Recorded Webinar landing page experienced the most page views, with the exception of the main landing page*
- Approximately 300 unique visitors per month on average from May 1 to September 30

Table 4 summarizes the TMIP|COP top ten page views for the reporting period. Figure 3 illustrates the visits per week, showing the week of May 13, 2012, as the highest for the reporting period with almost 500 visits.

**Table 4: TMIP|COP Pageviews by Page (top ten pages only)**

Page	Pageviews	% Pageviews
/Landing Page	1,769	9.4%
/Clearinghouse/ItemTypes/RecordedWebinar.aspx	1,263	6.7%
/Clearinghouse/SubjectCategory/Activitybasedmodeling.aspx	667	3.6%
/Clearinghouse/ItemTypes/PublishedReport.aspx	478	2.5%
/Clearinghouse.aspx	399	2.1%
/Community/DiscussionForums.aspx	396	2.1%
/Clearinghouse/Items/Introduction_to_Travel_Demand_Forecasting_Self_Instructional_CDROM.aspx	392	2.1%
/Clearinghouse/SubjectCategory/Traveldemandmodeling.aspx	365	1.9%
/Clearinghouse/Items/20120202__ActivityBased_Modeling_Executive_Session_1.aspx	357	1.9%
/Community/EmailLists.aspx	316	1.7%

Figure 3: TMIP|COP Visits by Week

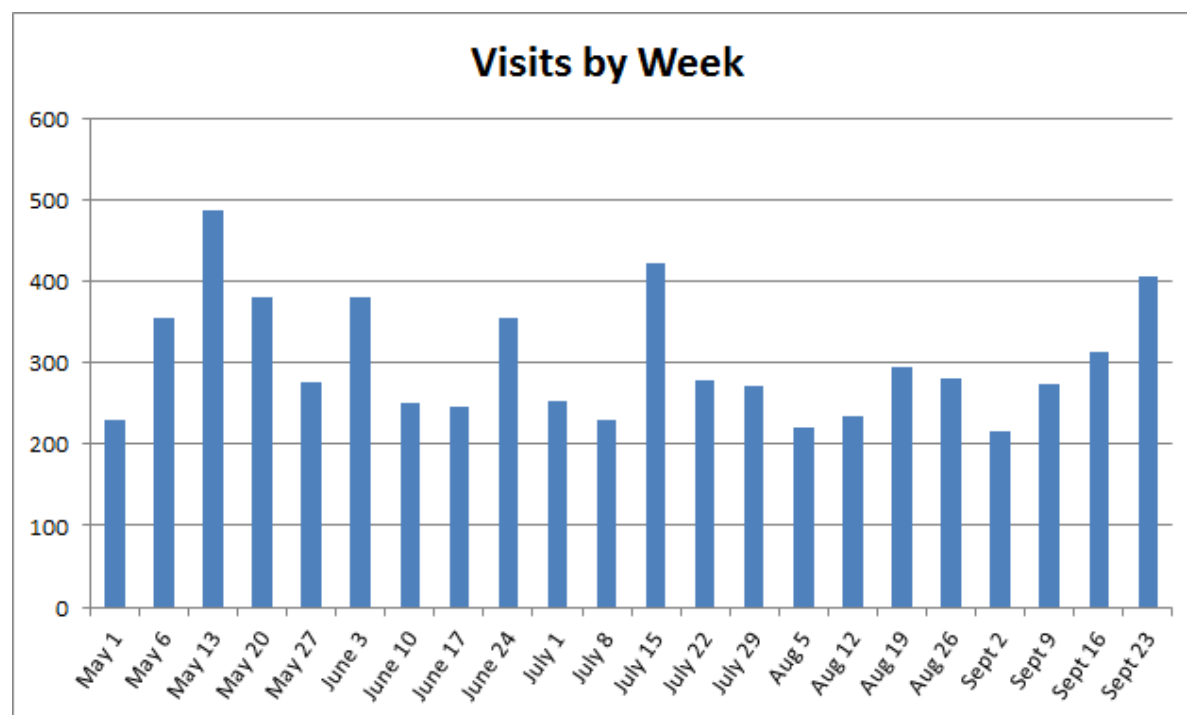


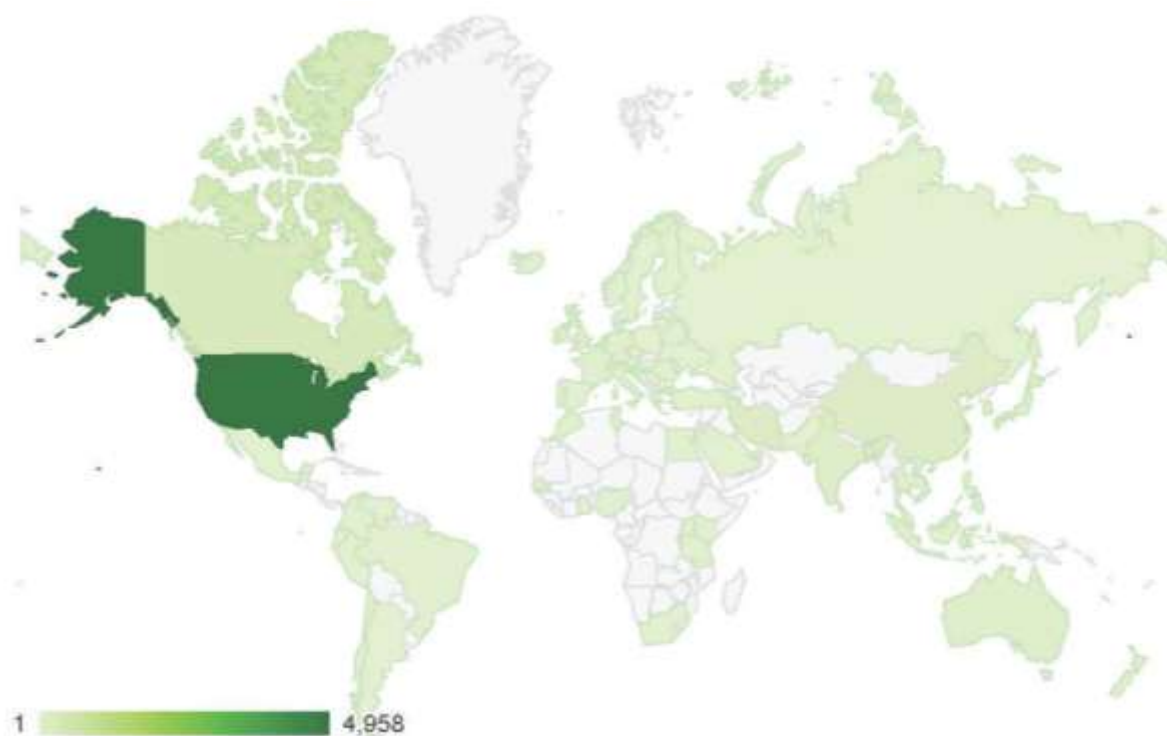
Table 5 below summarizes the TMIP|COP visits by country, reporting over 1,700 visits from outside the United States. Figure 4 geographically illustrates the TMIP|COP visits by country.

Table 5: TMIP|COP Visits by Country (top ten countries only)

Country	Visits	Pages/Visit	Avg. Visit Duration	Bounce Rate *
United States	4,958	3.02	0:07:44	29%
Canada	319	2.15	0:10:13	30%
Iran	167	1.19	0:07:18	21%
China	164	2.65	0:04:52	30%
India	148	2.22	0:02:35	43%
United Kingdom	86	1.79	0:01:16	52%
Japan	82	2.63	0:03:05	28%
Australia	75	3.96	0:09:00	36%
South Korea	61	1.87	0:03:24	34%
Netherlands	38	2.16	0:02:14	24%

\* Bounce rate is the percentage of visitors who enter the site and "bounce". Rather than continue viewing other pages within the site. A bounce occurs when a visitor only views a single page on a website.

Figure 4: TMIP|COP Page Visits by Country



### Hosting and Maintaining TMIP-L Email List

The TMIP-L email list has approximately 1,600 subscribers. During the performance period 172 email messages were moderated and then distributed to the TMIP-L email list. Table 6 below summarizes the breakdown of posts by topic.

Table 6: Total Number of TMIP-L Postings by Topic

Email List Topic	Email Posts
Technical Discussion	84
Announcements ( <i>Call for Papers, Courses Offered, Seminars</i> )	36
Job Posts	26
Ask The Modeling Expert Responses	18
RFPs	8
<b>Grand Total</b>	<b>172</b>

### Providing Virtual Technical Assistance

During the performance period six live-chat and twenty-one email technical assistance questions were submitted to the TMIP|COP Ask-The-Expert service. Table 7 summarizes the technical assistance provided by the TMIP|COP Ask-The-Expert Service.

**Table 7: Ask-The-Expert Technical Assistance**

<b>Ask-The-Expert Inquiries</b>	<b>Total</b>
Live-Chat	6
Email	21
<b>Grand Total</b>	<b>27</b>

### *Contributions to Program*

The TMIP|COP's and TMIP-L email list enables TMIP to reach out to thousands of professionals around the globe and provide a platform for community members to connect with each other in a cost effective way. The TMIP|COP uses technology to provide an interactive learning and communication experience for transportation modeling, simulation, and analysis professionals. The TMIP|COP also contributes to the TMIP Program by facilitating critical technical discussions regarding innovation and ideas for enhancing tools that can be further evaluated and collaborated on by professional staff.

## TMIP Website

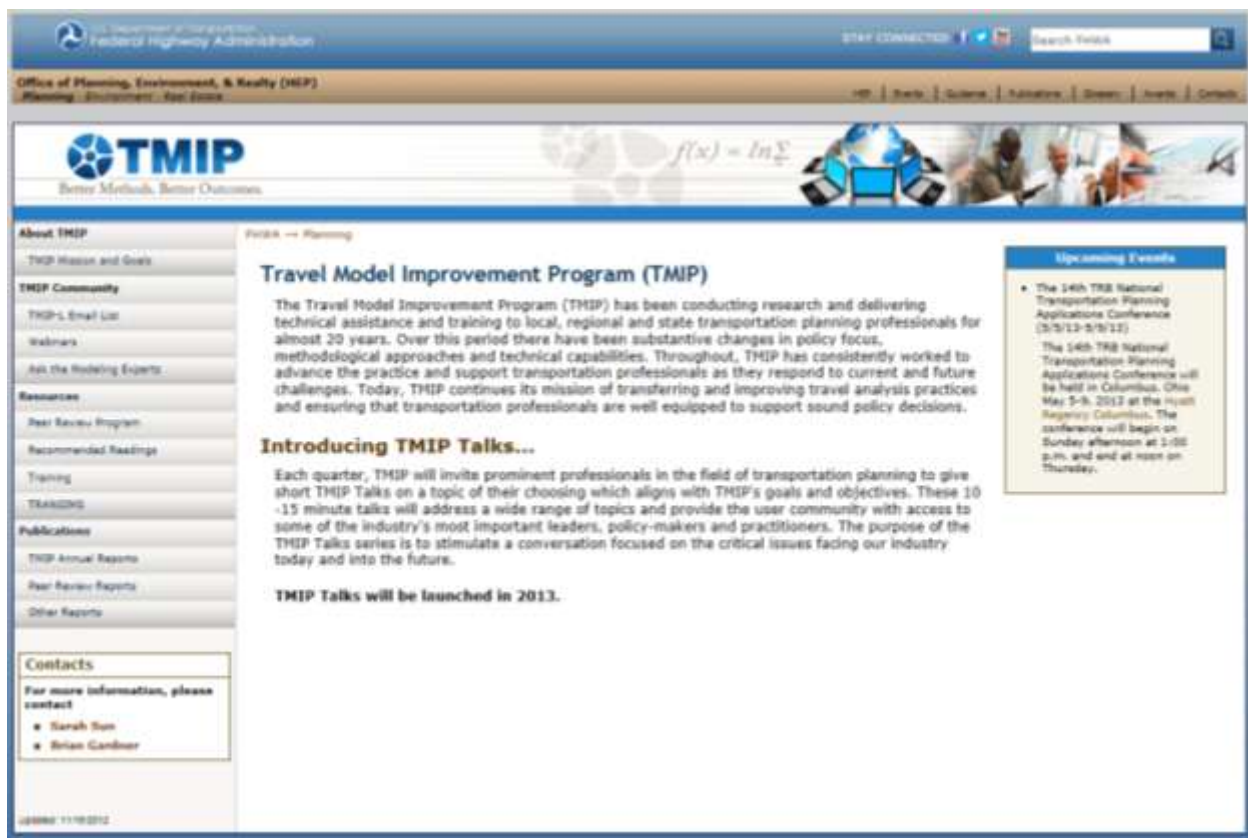
The TMIP website located within the broader Department of Transportation (USDOT) and FHWA website is the Program's primary web-presence. The FHWA TMIP website is located at: <http://www.fhwa.dot.gov/planning/tmip/>. The TMIP Website varies from the TMIP|COP in that the TMIP|COP is a forum intended solely for TMIP Community members to utilize and share relevant research, information, and experiences that inform similar members and agencies. The TMIP Website, on the other hand, is designed as a general public access webpage to obtain information on TMIP initiatives. The Website is intended mainly as a source for members both inside and outside of the TMIP Community to obtain information available through TMIP's offerings.

### Performance Period Accomplishments

The FHWA TMIP website was significantly enhanced to better demonstrate the TMIP Programs and its initiatives currently underway. The TMIP Website is designed with the user community in mind. A simple navigation menu provides the full range of TMIP offerings. Using each of the main subject headings, the pages clearly and concisely describe the program/initiative and provide hyperlinks to additional relevant material and/or websites.

Enhanced TMIP logos, branding, and program imagery were developed and implemented on the TMIP Website. The improved logo and tagline were inspired by the TMIP Program's new areas of emphasis and direction for future growth. This enriched imagery better illustrates the past and future of the program's activities. Figure 5 presents a screenshot of the Website.

Figure 5: The Enriched FHWA TMIP Website





Site analytics and standard reporting available through the FHWA StaffNet internet usage statistics reports were used to determine the overall usage of the TMIP Website during the reporting period. Table 8 summarizes visits by month. Table 9 provides a summary of page visits to the top ten pages viewed on the TMIP.GOV site. Figure 6 presents the visits by week, showing the week of May 27, 2012, as the highest for the reporting period with almost 2,000 visits.

- TMIP .GOV website had 34,767 unique visitors between May 1 and September 30
  - *The average visit duration was approximately 13 minutes*
- TMIP .GOV website had 81,635 page views between May 1 and September 30
  - *The TRANSIMS directory page experienced the most page views, with the exception of the main landing page*
- TMIP .GOV website had approximately 1,590 unique visitors per month on average between May 1 and September 30

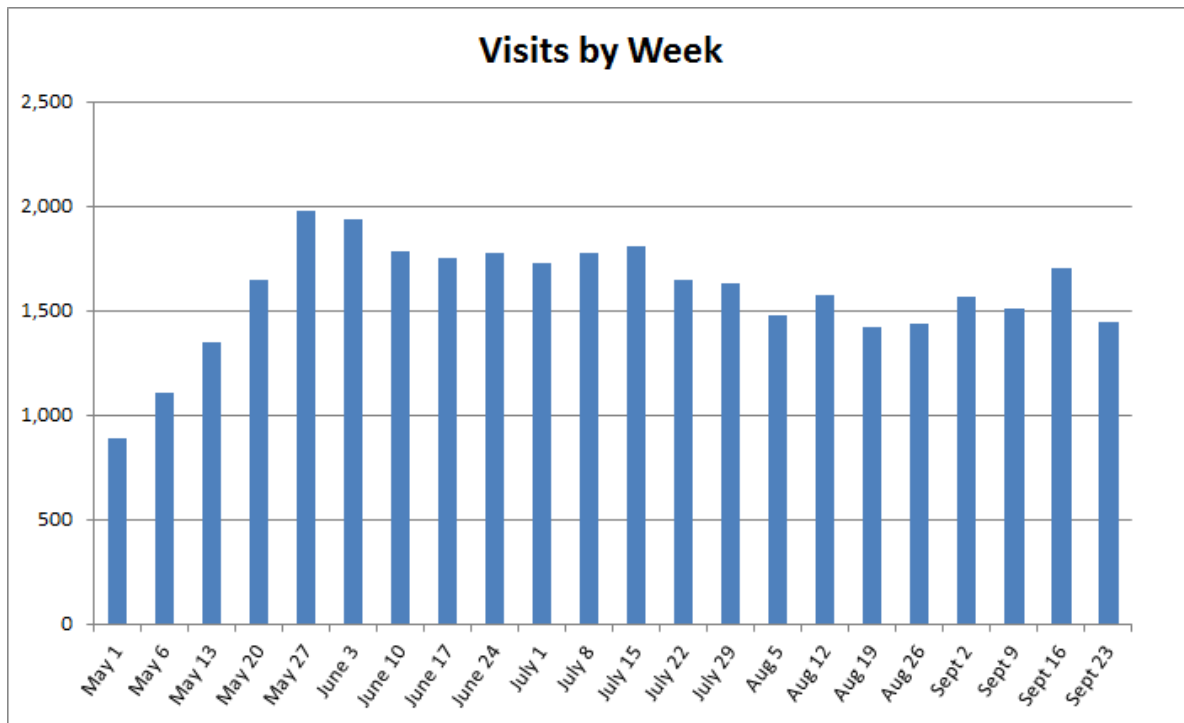
**Table 8: TMIP .GOV Website Visits by Month**

Month	Visits	Pageviews	Pages/Visit	Avg. Visit Duration
May	5,970	22,226	3.72	0:12:54
June	7,730	17,301	2.24	0:12:32
July	7,669	12,860	1.68	0:10:23
August	6,818	15,995	2.35	0:13:54
September	6,580	13,253	2.01	0:14:12
<b>Grand Total</b>	<b>34,767</b>	<b>81,635</b>	<b>2.35</b>	<b>0:12:47</b>

**Table 9: TMIP .GOV Website Pageviews by Directory Page (top ten pages only)**

Page Directory	Page Visits	% Page Visits
<a href="http://www.fhwa.dot.gov/planning/tmip/">http://www.fhwa.dot.gov/planning/tmip/</a>	6,697	19.3%
<a href="http://www.fhwa.dot.gov/planning/tmip/transims/">http://www.fhwa.dot.gov/planning/tmip/transims/</a>	2,220	6.4%
<a href="http://www.fhwa.dot.gov/planning/tmip/resources/">http://www.fhwa.dot.gov/planning/tmip/resources/</a>	1,773	5.1%
<a href="http://www.fhwa.dot.gov/planning/tmip/about/">http://www.fhwa.dot.gov/planning/tmip/about/</a>	1,597	4.6%
<a href="http://www.fhwa.dot.gov/planning/tmip/resources/peer_review/process_guide/">http://www.fhwa.dot.gov/planning/tmip/resources/peer_review/process_guide/</a>	1,466	4.2%
<a href="http://www.fhwa.dot.gov/planning/tmip/resources/peer_review/">http://www.fhwa.dot.gov/planning/tmip/resources/peer_review/</a>	897	2.6%
<a href="http://www.fhwa.dot.gov/planning/tmip/about/annual_reports/fy2003/">http://www.fhwa.dot.gov/planning/tmip/about/annual_reports/fy2003/</a>	831	2.4%
<a href="http://www.fhwa.dot.gov/planning/tmip/about/annual_reports/fy2005/">http://www.fhwa.dot.gov/planning/tmip/about/annual_reports/fy2005/</a>	759	2.2%
<a href="http://www.fhwa.dot.gov/planning/tmip/about/annual_reports/fy2004/">http://www.fhwa.dot.gov/planning/tmip/about/annual_reports/fy2004/</a>	718	2.1%
<a href="http://www.fhwa.dot.gov/planning/tmip/about/annual_reports/">http://www.fhwa.dot.gov/planning/tmip/about/annual_reports/</a>	377	1.1%
<b>Grand Total</b>	<b>34,767</b>	<b>100.0%</b>

Figure 6: TMIP .GOV Website Visits by Week



### *Contributions to Program*

The TMIP Website is the face of the TMIP Program. The site is useful to agency staff as it illustrates the goals, objectives, and programs of the overall TMIP Program. It is also very helpful in drawing agency awareness to the materials made available for their access.

## Summary and Observations

TMIP strives to facilitate technology deployment and promote best practices. Each of the initiatives in the program is designed to meet the needs of state, regional, and local transportation planning agencies. TMIP staff members constantly monitor the industry trends and community needs and adjust initiatives to meet new, emerging needs. Each TMIP activity plays an important part in fulfilling TMIP's vision:

### TMIP Webinars

Webinars are an important contribution that TMIP makes to the community, given they provide an extensive amount of information using limited resources. The WKIE and WOW webinars are unique in that they offer a cost-effective means of sharing noteworthy practices to build professional capacity in modeling and analytical techniques. WKIE sessions provide a forum for the TMIP Community to share knowledge and experiences, while WOW sessions deliver highly technical knowledge with a practical focus through comprehensive education sessions on a single topic. Ranging from twelve session series to one-session briefings, these webinars provide a classroom-like setting in which agency members can ask questions and spend time delving into complex information to expand their knowledge base in a cost effective manner.

With an abundance of readily available information, these series aim to meet immediate local, Metropolitan Area Organization (MPO), and State agency needs. The webinar sessions are recorded so they can be accessed on-demand. By making these WKIE and WOW sessions available, TMIP's webinars open the door for agencies and professionals to a variety of materials, resources, and expert advice regarding the application and advancement of individual tools in planning practices.

### Peer Reviews

TMIP Peer Reviews offer another venue for building state, regional and local agency capacity to promote best practices. The focused professional and peer networking opportunities that are fostered through the Peer Review Program promote the sharing and transfer of valuable information, skills, and expertise among TMIP Community members. The opportunity to exchange different viewpoints and solutions to complex behavioral and computational problems can provide highly valuable perspective and understanding on specific topics for the peer review participants. This knowledge sharing and promotion of best practice is critically important as advanced tools and techniques become more widely adopted in the transportation planning community and as agency staff are simultaneously asked to conduct more detailed analysis using less time and funding.

Agency satisfaction in the Peer Review Program has been very high. During post Peer Review evaluations agencies feel that the peer reviews meet or exceed the host agency's expectations. The Peer Review panels are characterized as collegial, technically skilled, and generally interested in helping the host agency while promoting improved techniques and methods.

### At A Glance Series

It is extremely easy to obtain information with so many resources available at the click of the mouse. However, it is important to note that more information does not equate to better information. The At A Glance series lends efficiency to the TMIP Community through its ability to eliminate the time consuming process of searching through superfluous documentation to locate relevant, reliable, and current information. At A Glance brochures provide logical, succinct one-stop references to fill the gaps between superficial summaries and lengthy, technical documents.

### **TMIP Talks**

Though in initial planning stages, the TMIP Talks Initiative has the potential to stimulate conversations focused on critical issues relevant to the present and future of transportation planning. The TMIP Talks Initiative aims to engender interaction and discussion between TMIP Community members and experts in areas of high relevance to community needs.

### **TMIP Agency Snapshot Report Series**

The TMIP Agency Snapshot Report Series provides the latest information in a concise yet comprehensive style that is easily accessible for reference by state and local planning agencies. The Agency Snapshot Report Series also helps minimizing the cost of reinventing the wheel by identifying common issues and needs exhibited by planning agencies that have led to focused research efforts and demonstrated successes.

### **TMIP Toolbox**

The information provided by the TMIP Toolbox is intended to support clearer, more productive communication amongst analysts, managers, and agency executives and ultimately guide more fruitful investments in technology and more robust, reliable, and helpful planning analysis data, tools, and methods.

### **TMIP Online Community of Practice**

The TMIP|COP aims to create a true sense of community by facilitating streams of communication between agency members, consultants, and associated professionals. Through the TMIP|COP and the TMIP-L email list, the TMIP Program strives to provide a national platform for public agency staff and travel modeling and analysis professionals to collaborate on various technical topics.

### **TMIP Website**

Finally, the TMIP Website affords TMIP a simplistic medium to more effectively and efficiently provide data and services to not only the TMIP Community but also more importantly to those unfamiliar with the TMIP Program. The Website also provides a means to coordinate TMIP initiatives with other FHWA programs.

### ***Concluding Remarks***

There are a number of ways to gauge the success of a program but few are as informative as feedback provided directly from the program's users. The TMIP Community members both utilize and steer the program and its various initiatives. One international community member provided the following feedback: "I am unable to join your webinar but did want to formally register my strong support for and deep appreciation of the TMIP mailing list. This is a unique and invaluable resource for the modeling community (me included). I know that you are naturally US-focused but I'm sure that I speak for many subscribers located beyond your shores when I say that you truly have an international impact on the profession. Please keep up the great work."<sup>1</sup> Another member said "I like TMIP because:

1. Addresses items that are currently relevant and in many cases, vexing to all of us.
2. Holds webinars to expand the knowledge base - these are convenient and easy to attend.

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<sup>1</sup> Monday, March 11, 2013 6:54 AM Email feedback from Dr. Robert Bain, London, England

3. Allows smaller organizations to be aware and become familiar with the more cutting edge issues as they are addressed by the entities with greater capacity to be the initiators and early adopters/developers.

4. Allows smaller organizations to be members of the wider community of modelers.”<sup>2</sup>

It is for such users that TMIP continues to offer services and provide the most relevant and useful information available.

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<sup>2</sup> Thursday, August 28, 2008 4:48 PM Email feedback from Susan G. Payne, Senior Planner, Central Lane Metropolitan Planning Organization, Lane Council of Governments

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