

Iowa Local Technical Assistance Program (HR296)
2010 Summary Report
and
2011 Continuation Funding Proposal

Prepared for the
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Prepared by



Institute for Transportation
Iowa State University
2711 S. Loop Drive, Suite 4700
Ames, Iowa 50010-8664

October 2010

Keith Knapp, Principal Investigator
515-294-8817
email: kknapp@iastate.edu

Contents

INTRODUCTION	1
Historical Perspective	1
Vision and Mission	1
Objective and Guiding Principles	2
New Report/Proposal Organization	2
LTAP OPERATIONS: STAFFING AND MAJOR INITIATIVES.....	3
Staffing Transitions.....	4
Initiative #1: Local Roads Safety Liaison (Safety Focus Area)	4
Initiative #2: Iowa Public Employees Leadership Academy (Workforce Development Focus Area)	5
Initiative #3: Customer Training Needs Survey (Organizational Excellence Focus Area).....	6
Initiative #4: Mail List/Events Management Database Platform Upgrade (Organizational Excellence Focus Area).....	7
Initiative #5 Exploration of New Partnerships (Organizational Excellence Focus Area).....	7
ONGOING AND PROPOSED ACTIVITIES	8
Task 1: Compile and Maintain Mailing List.....	8
Task 2: Publish Newsletter and Other Publications.....	9
Task 3: Provide Technical Reference Material and Information.....	11
Task 4: Provide Information and Referral Service	12
Task 5: Conduct or Arrange Workshops and/or Training Sessions.....	14
Task 6: Evaluate Effectiveness of Program	19
Task 7: Perform Highway Safety Circuit Rider Tasks	21
EVALUATION.....	22
ESTIMATED EFFORT	22
LTAP Director	22
Financial Coordinator	23
Safety Circuit Rider	23
LTAP Event/Secretarial Support	23
Computer Support.....	23
Library Coordinator	23
Publications Staff	24
PROPOSED BUDGET	24
PERIOD OF PERFORMANCE	26
REPORTS	26
PROPOSED IMPLEMENTATION	26

PRINCIPAL INVESTIGATOR.....	26
APPENDIX A: DETAILED 2011 PROPOSED LTAP BUDGET	28

INTRODUCTION

This document includes a summary of the initiatives and activities that are ongoing or have been completed by the Iowa Local Technical Assistance Program (LTAP) in 2010. It also contains a request for the 2011 continuation of LTAP funding. A brief history of Iowa LTAP is below. In addition, its mission/vision and objectives are noted and an explanation of the new organization used for this report is provided. The remainder of this document includes a description of the Iowa LTAP operations in 2010 and 2011. More specifically, staffing changes and several major initiatives are presented. This is then followed by a discussion of task-by-task 2010 outcomes and proposed 2011 activities.

Historical Perspective

The Iowa LTAP began in 1983 as the Rural Technical Assistance Program (RTAP). It was one of 10 original RTAPs funded by the Federal Highway Administration (FHWA) in 10 states. These programs were typically called technology transfer centers, or T² centers. The goal of RTAP was to share new research and updated information with local transportation agencies and help them in their daily transportation operations. The Iowa RTAP outreach efforts—including a quarterly technology newsletter, transportation lending library, training workshops, and individualized technical assistance—helped prove the benefits of such a program and RTAP was eventually funded in all 50 states, Puerto Rico, and seven tribal regions. In 1991, the RTAP was renamed the Local Technical Assistance Program (LTAP) and the Tribal Technical Assistance Program (TTAP). This change also included the addition of an urban element to the program.

The Iowa LTAP is managed through the Institute for Transportation (InTrans) at Iowa State University under an annual contract administered by the Iowa Department of Transportation (Iowa DOT). Funding for the Iowa LTAP and its related activities primarily comes from the FHWA and the Iowa Highway Research Board. Additional funding for Iowa LTAP staff is also acquired through individual state and federal project contracts, Iowa State University Extension, and the Iowa Governor's Traffic Safety Bureau. Other sources of funding continue to be explored.

The Iowa LTAP has always fostered close relationships with local governments and their leaders. This philosophy was started by the first director, Dr. Stan Ring, and continues today. To facilitate these relationships and to receive input from local government representatives, the Iowa LTAP has an advisory board of representatives from cities, counties, consultants, the Iowa Highway Research Board (IHRB), the Iowa DOT and the FHWA. Many local transportation agency representatives also assist Iowa LTAP by presenting, organizing, and helping define event content. In turn, LTAP staff have presented at or assisted with (or will soon begin to do so) the planning of partnership organization/society meetings important to local transportation agencies.

Vision and Mission

Part of the stated program vision for all LTAPs is to "...improve the quality and safety of the surface transportation system through interactive relationships and information exchange." The activities and initiatives completed by the Iowa LTAP that work toward this goal are defined in the "Ongoing and Proposed Tasks" section of this report. The four focus subject areas

(described later in this report) that were recently identified by the FHWA are used to categorize these activities.

The following mission statement for the Iowa LTAP was developed by its advisory board. It describes why LTAP is important to local agencies in Iowa and why the continuation of the program is desirable:

The Iowa Local Technical Assistance Program's mission is to foster a safe, efficient, environmentally sound transportation system by improving skills and knowledge for local transportation providers through training, technical assistance, and technology transfer. By working together, we strive to enhance the quality of life for all Iowans.

Objective and Guiding Principles

The primary objective of Iowa LTAP is to provide quality training events and technology transfer that are useful to local transportation agencies. These activities need to be completed, within current LTAP funding, in a manner that is effective and efficient. Desirably, these activities are also provided when they are most needed by local transportation agencies, and in a format that is useful and useable. New knowledge and tools, developed through IHRB research or other entities, can also easily be incorporated, in an appropriate manner, into either existing or new LTAP activities.

It is proposed that the strategic planning and decision-making needed to make Iowa LTAP a premier technology transfer (or extension/outreach) resource be guided by the following principles:

- Define and respond to customer needs;
- Provide quality customer service through various methods;
- Evaluate effort and track performance to improve service and communicate impacts;
- Apply fiscal responsibility through the selection of economically feasible activities/tasks;
- Strive for predictable program funding and continue with highly capable staff;
- Expand and strengthen state and national organizational partnerships that may enhance the services provided by Iowa LTAP

New Report/Proposal Organization

All LTAPs, as part of their funding, have been required by FHWA to complete six major tasks. These tasks include compiling/maintaining mailing lists, publishing and distributing a quarterly newsletter and other technology transfer publications, providing technical reference materials and information, acting as an information and referral service, conducting and/or arranging workshops and/or training sessions and the evaluation of the program effectiveness. The Iowa LTAP, in conjunction with the Iowa DOT, also added a seventh task: the Safety Circuit Rider program.

The annual reporting and proposal for Iowa LTAP funding, for many years, has been structured around the completion and/or the output of the tasks noted above. This structure will not change

dramatically for this report and the seven tasks will still need to be completed. The activities within each task, however, will now need to be categorized (when appropriate) by four program focus areas identified by FHWA (these are defined below).

About two years ago, the FHWA recommended that all LTAP work plans be transitioned to an organization centered on the four program focus areas within the national LTAP Strategic Plan. These four focus areas included: safety, infrastructure management, workforce development, and organizational excellence. They were generally defined in the following manner:

- Safety – improve awareness and increase the implementation of best practices in safety;
- Infrastructure Management – increase the implementation of best practices in planning, design, construction, maintenance, management, and operation of the surface transportation system;
- Workforce Development – help stakeholders attract, retain, and retrain a knowledgeable and skilled workforce; and
- Organizational Excellence – endeavor to deliver and continually improve efficient services to our stakeholders through the effective management of our organizational resources.

All the activities, impacts, and output from state LTAPs now have to be designated, at least annually, within one of these programmatic focus areas. In fact, the focus areas above align with the program performance documentation now required by the FHWA. However, there is no expectation by FHWA that state LTAPs do a certain number of initiatives or activities/tasks within each of the focus areas. State LTAPs still need to respond to the needs of their customers (i.e., local transportation agencies), but it is hoped that the focus areas will be used to guide some of their decision-making. In other words, there are many training and technology transfer needs that can be defined within the four focus areas, but they cannot cover everything.

The Iowa LTAP will continue to complete the tasks/activities/events related to the subject material needed by its customers. These activities will then be categorized within one or more of the four focus areas. It will also continue, as it has for years, offering technical information through several methods. This document is the first attempt by Iowa LTAP to develop a work plan that includes information about the “four program focus area” directive. It includes a description of Iowa LTAP initiatives and task-by-task activities. Where appropriate, however, these activities, particularly for 2011, are categorized within one or more FHWA focus areas.

LTAP OPERATIONS: STAFFING AND MAJOR INITIATIVES

The following paragraphs include a description of the staffing changes that have or will occur during 2010 and 2011 at the Iowa LTAP. In addition, several ongoing initiatives are presented. These initiatives include the local road safety liaison, Iowa Public Employees Leadership Academy, distribution of a customer training needs survey, an upgrade of the customer management database, and the exploration of new partnerships. Some of these initiatives are funded with resources outside those being requested in this document. Each of them is categorized within one or more of the FHWA program focus areas.

Staffing Transitions

The staffing at Iowa LTAP has changed significantly in 2010. Duane Smith retired as Director on December 31, 2009. Shashi Nambisan, InTrans Director, was the Iowa LTAP principal investigator (and Tom McDonald the co-principal investigator) from January 1, 2010 to May 31, 2010. During this time period, Bob Sperry, Tom McDonald, Georgia Parham, and many others at InTrans continued to work diligently on Iowa LTAP training and technology transfer tasks. Serious illnesses during the first part of the year also reduced the availability of various publication and LTAP staff. It's been a turbulent year of staffing succession and almost continual reorganization and redistribution of LTAP assignments. In many respects, this experience was not unlike what many of our local Iowa transportation agencies (our customers) have been experiencing.

The new Iowa LTAP Director, Keith Knapp, started on June 1, 2010. In addition, the publication staff at InTrans is now almost fully operational. There have been, however, other unexpected extended absences by LTAP staff. This situation has required the identification and temporary use of other InTrans staff to complete LTAP tasks. In fact, it is believed that the presence of LTAP within the InTrans structure, and the willingness of its staff to step forward (along with many local agency volunteers), has allowed the program to continue with the completion of its traditional technology transfer and training efforts. This type of flexibility and teamwork is not always possible within an organization.

During 2011 (and the latter part of 2010), some additional staffing shifts will occur, along with related adjustments in the budget. Georgia Parham, a major contributor to the success of Iowa LTAP for many years, will retire in December 2010. She has been asked, and has started to document many of her LTAP work activities for the staff that will be assigned to her LTAP-related job duties. It is currently expected that these task reassignments will be completed by existing InTrans staff, but (if and when feasible) a new employee may also be necessary. A transition plan for these reassignments will be developed in the coming months.

Initiative #1: Local Roads Safety Liaison (Safety Focus Area)

Bob Sperry joined the InTrans staff in March 2008. Bob filled the position of Local Roads Safety Liaison Engineer. This position does not receive funding via the LTAP resources, but is a vital link for the LTAP-related service (e.g., assisting local transportation professionals and helping to identify needs). Bob initiated the activities of the Local Roads Safety Liaison. These activities include: assisting with LTAP training activities as directed by the Iowa LTAP Director; cooperating and contributing to local roads safety research projects; assisting with the Iowa LTAP Safety Circuit Rider in planning, organizing and presenting workshops and other local roads safety activities as directed; serving as the local roads safety liaison for the Iowa Department of Transportation's Office of Traffic and Safety by interacting and promoting local road safety with county engineers, city engineers, public works directors and regional planning authority (RPA) personnel; assisting with the coordination, formation and support of new regional multidisciplinary teams as a part of Iowa's Comprehensive Highway Safety Plan; emphasizing the data available from *InTrans's* Safety Data Service Center; preparing crash data demonstrations to use during discussion sessions; scheduling face-to-face meetings with city engineers, public works directors and RPA staff to present their agency's crash data with the

purpose of developing a local road safety program; and coordinating crash data queries with *InTrans* staff at the Safety Data Service Center for local agencies identified by this position.

In 2011 (and 2012), if funding is acquired, Bob plans to continue his effective work as the local roads safety liaison, concentrating his consultations on those entities that have new engineers, have high ranking safety risk locations and have an interest in developing a safety program for their agency. In the past few years, he has visited every county in the state and assisted them with crash evaluations. He has also been involved with research connected to crashes on low-volume rural roadways, the safety edge, and the effects of the biofuels industry on rural infrastructure. In addition to his visits to the counties, he has begun to include visits to cities and towns, to increase their awareness of safety programs available to them through the Iowa DOT, including a no cost signage program. The introduction of local safety culture in Iowa requires this level of commitment and operation. Bob was also instrumental in the continuation of the Iowa Public Employees Leadership Academy (see below) after the retirement of Duane Smith.

Initiative #2: Iowa Public Employees Leadership Academy (Workforce Development Focus Area)

Local public agencies in Iowa are continually challenged with reduced staff levels, reduced budgets, and increased expectations for services provided. Responding to these demands requires a well-informed and coordinated local staff. A common foundation to build upon is critical to this coordination and training is essential to the accomplishment of this task. In response to this need, the Iowa LTAP, in conjunction with Iowa’s public agency representatives, developed the Iowa Public Employees Leadership Academy (the Academy).

The Academy is a training program designed to create better (or new) leaders and supervisors for Iowa’s public agencies. It provides a curriculum to train the next generation of leaders who will replace existing leaders when retirements occur. In addition, the Academy provides an opportunity for cross-training that will allow management the full use of the new leaders’ resources. It must be noted that the techniques and skills offered in the Academy can apply to all who wish to develop or sharpen their leadership and management abilities. This will be true whether the participants are employed in the private or public sectors. Through the Academy, the Iowa LTAP will provide a coordinated, structured, non-credit educational program and making it available on-line for a fee.

A steering committee was assembled to oversee the development and implementation of the curriculum for the Academy. The committee initially identified 10 core modules that would be developed, presented online, and at professional association meetings and conferences, where feasible. After beginning work on the planned “Basic Management” module, it was decided that it should be divided into two segments. One of the segments is still called “Basic Management”, but the other is now entitled “Team Development”. All 11 modules are listed on the following page along with their completion status.

<u>Module Title</u>	<u>Completion Date</u>
• Supervisory Techniques and Skills	2009
• Team Development	2009
• Leadership Skills	2009
• Fundamentals of Government	2009

- Resource Management Skills 2009
- Effective Communication Skills 2010
- Operations and Maintenance
November 2010
- Basic Management Skills 2010
- Community Service/Customer Orientation Skills 2010
- Legal Understanding 2010
- Finance 2010

During 2010, all 11 modules will be completed and available online (the plans for 2011 are noted below). Overall, 65 people have attended the Academy courses online and in person. In addition, 41 people registered for the “Legal Understanding” module that was held on September 28, 2010 (the day before the Iowa Streets and Roads Conference).

In 2011, LTAP, InTrans, and Iowa State University Extension staff will develop and complete a marketing plan for the Academy. In addition, the certification of the Academy with the American Public Works Association Public Works Institute will be pursued. This certification, however, requires additional course hours to be developed. Therefore, the steering committee and the Academy coordinator have decided to utilize most of the remaining funding to develop three more modules. These modules will likely focus on Emergency Management, Winter Maintenance, and Project Management. Work is currently underway to acquire approval for this additional training.

Initiative #3: Customer Training Needs Survey (Organizational Excellence Focus Area)

In June and July 2010, a customer training needs survey was created and delivered, through two options, to Iowa LTAP customers. The survey was posted online and could be faxed back to InTrans. In addition, an email was sent that advertised the survey. The survey was also included in hard copy form within the March-June, 2010 *Technology News* newsletter. The postage to mail the survey back to Iowa LTAP was pre-paid. In addition, to encourage a better response to the survey a drawing for an iPod was offered as an incentive. Unfortunately, the response to this survey has been very small. The number of subscriptions for the newsletter is about 1,825. Only 26 surveys were returned (or a 1.4 percent response rate). The source of this lack of response is unknown, but it is being investigated. It is proposed, however, that a better method needs to be determined to collect this type of information in the future. The “mail-back” postage paid approach, although relatively inexpensive, clearly did not work. Other options include a more focused survey at events, an online survey, telephone surveys, and/or some combination of these two approaches. The effective application of evaluations at all (rather than just some) Iowa LTAP training courses would also be helpful.

The results of the survey have not been completely summarized at this time, but the value of such a small sample of responses is minimal. The origins of this lack of response need to be found and a change made that makes people believe it is worth responding (additional advertising and notification would have likely helped and making it available in an online format should have also increased response). Overall, a scan of the survey responses appears to indicate that many of the core subjects in the Roads Scholars program are of some interest to the respondents. However, it is also clear that vast majority of the local agency representatives that

did respond to the survey were very willing to take advantage of online training when it is made available.

Initiative #4: Mail List/Events Management Database Platform Upgrade (Organizational Excellence Focus Area)

The mail list/events management database developed, organized, and updated by InTrans and LTAP staff is an essential tool to the operation of both organizations. It is related to the mailing of newsletters and event brochures. In addition, it has also been used to print event participant rosters and name tags. It is also essential to the tracking of courses and credit hours for our Roads Scholars program. Unfortunately, it has been noted by a number of LTAP customers and staff that this system has not been producing proper outputs. Two reasons (among others) that this might be occurring include “bugs” in the database setup and/or programming and a backlog in the transfer of “hard copy” registration materials into the database.

An investigation in June/July of this year led to the conclusion that the mail/event management database software platform had become (or has been) unstable, but it appeared that there was also missing attendance information that needed to be added into the database. Adding more information to an unstable database system would be inappropriate so an initiative was started internally to redesign the database platform. This activity started approximately two months ago. After the completion of the new system, the files and folders that show past (likely for the last three or four years) attendance at LTAP-sponsored will be reviewed. Attendance will be confirmed within the system and added if necessary. Unfortunately, this initiative does put the online confirmation of Roads Scholars status on a temporary hiatus. Of course, information about attendance at LTAP events will continue to be collected and then entered in to the database when the system is working again. The time period during this hiatus may also be a good time to reconsider the courses that are included in the core curriculum for the Roads Scholars program.

Initiative #5: Exploration of New Partnerships (Organizational Excellence Focus Area)

During 2010 and 2011, the Iowa LTAP will explore the initiation of more active partnerships with existing Iowa transportation-related non-profits and/or professional societies. The value of these partnerships to both parties can be substantial. The mission of the Iowa LTAP is to provide transportation-related training and information to local agencies within the state. A partnership that helps these activities occur in a more effective and efficient manner is beneficial to the program (if it is economically feasible). Iowa LTAP already assists with the Iowa Secondary Roads Maintenance Supervisors Association Streets and Roads Conference and several other events, but it has been proposed that it might make sense for it to also help with events related to the asphalt and concrete industry and possibly the Iowa County Engineers Association. The benefit or potential added-value to Iowa LTAP and its customers will need to be evaluated on a case-by-case or event-by-event basis. The addition of events (or tasks) beyond the current staffing workload, particularly during times of limited budget and staffing, should be closely considered. The evaluation of new and proposed partnerships will occur this year and continue into the future.

ONGOING AND PROPOSED ACTIVITIES

The following seven tasks are the operational basis of the Iowa LTAP plan to achieve its primary objective of training and transferring technical knowledge to local transportation professionals. The first six tasks were those traditionally required under the FHWA contract negotiated with the Iowa DOT, but the seventh task, the Safety Circuit Rider, was added by an agreement between Iowa LTAP and the Iowa DOT. The characteristics and details of the ongoing activities being completed under each task are noted below along with those being proposed for 2011. As appropriate, the output of the proposed activities is categorized within the four FHWA program focus areas.

Task 1: Compile and Maintain Mailing List

- Objective: continue to diversify and deliver quality customer service
- Measures: number, appropriateness, and correctness of addressees
- Benefits: improve service delivery
- Target Audience: government employees and agencies, associations with transportation interests, and other LTAP centers

During 2010, the mailing list for our Iowa LTAP newsletter, *Technology News*, contained about 1,825 subscribers. This mailing list is maintained by support personnel at InTrans.

The Iowa LTAP also maintains special mailing lists in-house as well. These include lists of municipal officials, county officials, and other LTAP centers. In addition, the Iowa LTAP maintains membership rosters for the Iowa Secondary Roads Maintenance Supervisors Association, and other organizations, all of which can be used for mailings from Iowa LTAP. These lists are also available on a limited basis for use by outside agencies, such as government employees and agencies, associations with transportation interests, and other LTAP centers wishing to reach a certain target group.

Proposed 2011 Activities

During 2011, the Iowa LTAP mailing lists will continue to be maintained, but an ongoing initiative will upgrade the platform upon which the mail list/event management database at Iowa LTAP resides. This initiative was described in more detail in the previous section of this report. After the database platform upgrade is completed all of the lists noted above will also be checked and upgraded to the greatest extent possible. In addition, the databases directly related to other LTAP tasks and initiatives (e.g., Roads Scholars) will be updated using currently available data. Finally, an ongoing objective will be to acquire as many email addresses as possible from existing and potential Iowa LTAP customers. The current database is very limited in this area of information and this deficiency dramatically reduces the communication capability of Iowa LTAP (and increases the cost of operations). Developing and maintaining a detailed mailing list of high quality is an activity that fits under the “organizational excellence” FWHA program focus area. The Iowa LTAP website will also be better maintained in 2011 and targeted for an update.

Task 2: Publish Newsletter and Other Publications

- Objective: enhance outreach to partners and customers
- Measures: publish a minimum of four issues of *Technology News* and other publications as identified

- Benefits: communicate advances in transportation
- Target Audience: government employees and agencies, associations with transportation interests, and other LTAP centers

The Iowa LTAP_Newsletter, *Technology News*, is currently being published four times a year. Local transportation agency staff are its primary audience. The majority of articles for *Technology News* are researched and written and/or edited by publications staff at InTrans. We receive many reprint requests from other LTAP centers and national magazines.

In 2010, we will publish four newsletters. (As of this proposal date, two issues have been published, posted online, and distributed to the newsletter mailing list. The remaining issues will be published in October and December 2010.)

Two of the *Technology News* issues in 2010 included an additional two-page pullout summarizing practices described in one or more chapters of the December 2008 LTAP publication, *Best Practices for Low-Cost Safety Improvements on Iowa's Local Roads*. The second issue also included the survey of training needs described previously in this report and the remaining two issues should include a column written by the new Iowa LTAP Director. It is hoped that this column will introduce readers to "hot topics" in the transportation area that could be of value locally. Regular newsletter features include library acquisitions and highlights, a workshop/conference calendar, highlights from training events, and brief descriptions of helpful websites.

The following are examples of topics covered in the first two issues of *Technology News* in 2010:

- Resources for Local Roads Safety Improvements (Safety Focus Area)
- Winning Solutions to Common Problems (Infrastructure Management Focus Area)
 - Culvert Inlet Improvement (Infrastructure Management Focus Area)
 - Magnet System for Picking Up Road Debris (Infrastructure Management Focus Area)
 - Temporary Storage for Oil and Diesel (Infrastructure Management Focus Area)
- Best Practices for Low-Cost Safety Improvements on Iowa's Local Roads (Safety Focus Area)
 - Mowing Entire ROW (Safety Focus Area)
 - Safety Dikes/Ramps at T-Intersections (Safety Focus Area)
 - Flattening Slopes of Entrances and Drives (Safety Focus Area)
 - Removal of Hazard(s) in Clear Zone (Safety Focus Area)
 - Reflective Tape and Paint on Guardrails (Safety Focus Area)
 - Roadside Cable Barrier (Safety Focus Area)
 - Roadside Beam Guardrail (Safety Focus Area)
 - Guardrail at Culvert Ends (Safety Focus Area)
 - Guardrail at Bridge Ends (Safety Focus Area)
- Teen Driving Survey Results (Safety Focus Area)
- Knapp Named LTAP Director (Organizational Excellence Focus Area)
- Just Say No to Noxious Weeds (Infrastructure Management Focus Area)

- Tell Us Your Training Needs (Organizational Excellence Focus Area)

The Iowa LTAP is a key venue for disseminating information and proposing implementation tools related to Iowa-based and national research results. In fact, many research projects become topics for technical summaries and/or newsletter articles, workshop and seminar presentations, and/or are reference materials available in the Iowa LTAP library. The following list includes a sample of recently (or soon to be) completed projects that are based on sponsored-research projects and could become *Technology News* articles in future issues:

- Development of an Improved Agriculturally Based Deicing Product (Infrastructure Management Focus Area)
- Application of Visualization and Simulation Programs to Improve Work Zone Safety and Mobility (Safety Focus Area)
- Ethanol Plant By-Product Uses for Pavement Geo-Materials Stabilization (Infrastructure Management Focus Area)
- Improving Concrete Overlay Construction (Infrastructure Management Focus Area)
- Iowa's Renewable Energy and Infrastructure Impacts (Infrastructure Management Focus Area)
- Bridge Rails and Approach Railing for Low-Volume Roads in Iowa (Infrastructure Management Focus Area and Safety Focus Area)
- Impacts of Rural Development on the Secondary Road System (Infrastructure Management Area)
- Local Agency Pavement Marking Plans (Infrastructure Management Focus Area)
- Safety Implications of Motorcycle Conspicuity (Safety Focus Area)

Proposed 2011 Activities

During 2011, a small advisory/editorial board for the newsletter will be created (this board was also proposed last year). The board will consist of representatives from various audience groups, LTAP and Iowa DOT libraries, and technical content specialists. It is proposed that this group will provide at least quarterly input and advice to the newsletter planning process via teleconference. This will supplement and enhance the LTAP advisory board's biannual input. The goal is to have more direct stakeholder involvement in determining the newsletter's focus and content. The library representative(s) will help the editor locate state-of-the-practice resources related to feature article topics.

During 2011, the articles in the newsletter (and the other LTAP related publications) will also be categorized within one or more of the four FHWA program focus areas. It is again proposed that four quarterly newsletters be completed, but that at least one article in each of the focus areas be included in each newsletter. As noted in Task 1, it is also proposed that more email addresses be gathered from LTAP customers (either individual emails or a group mail location within an agency). Primarily for cost savings purposes, several LTAPs now only provide their newsletters electronically (this is not currently being proposed in Iowa). Desirably, there will be more electronic technology transfer with LTAP customers in the future (e.g., newsletters, brochures, registration, surveys, and library loans). This is particularly true during the time period between the physical distribution of the quarterly newsletters. For example, LTAP staff sometime receive

notices about webinars multiple times a week (some of which are relevant to local transportation agencies and also free), but they often require quick responses for registration. The ability to communicate electronically could serve this type of situation. Unfortunately, at this point the email database at Iowa LTAP is limited. It is expected, however, that almost every local transportation agency has at least one email address that could be used for the small number of outreach/extension messages that would be sent.

Task 3: Provide Technical Reference Material and Information

- Objective: provide easily accessible training and learning materials
- Measures: number of items distributed
- Benefits: learning and training materials are available at the work location
- Target Audience: government employees and agencies and other LTAP centers, as well as consultants and other agencies serving the public

Iowa's LTAP has accumulated a large number of publications and videotapes in its library. Included are 1,121 publications, 621 videotapes, 92 CD-ROMs, and 272 DVDs. The entire computerized database is available as an online catalog, new library materials are typically highlighted in *Technology News*, and the librarian regularly displays technology reference resources at training sessions and conferences. In 2009, a total of 387 documents, videos, DVDs, and CDs were distributed from the LTAP library. In addition, during the first half of 2010 at least 237 documents, videos, DVDs, and CDs have already been distributed. The amount of material distributed in a particular year is impacted by a number of activities.

We also have the ability to convert videotapes to DVDs. This allows videos to be played through laptop computers for training and other presentations and also helps reduce storage space requirements and shipping costs. Iowa LTAP has also obtained over 20 packaged training units from other centers, state agencies, the FHWA, and other groups. A directory, with an abstract of each package's contents, is available to users and is in the online catalog.

The Iowa LTAP library resources can be identified and ordered from the library via the Internet. The online catalog is kept up-to-date. This improvement in services allows quicker response time by LTAP staff. A printed library catalog is no longer maintained. Specialized listings such as "Job Safety" and "Snow and Ice Control" are provided to users upon request.

The distribution of library materials was also changed from UPS to USPS, resulting in a savings of \$3.00–\$ 5.00 per order. In occasional situations where shipment time is critical, UPS will still be used for deliveries.

The Iowa LTAP library has a partnership with the Iowa DOT library. Library services are integrated and coordinated to enhance and expand our abilities in providing quality customer service.

As the LTAP library has become better known, it has increasingly become a first stop for questions. Although the librarian and other researchers do not formally track these requests, LTAP staff easily process hundreds of requests for information or referrals each year, even though finding the answers often involves a considerable amount of time. In the future, we see the LTAP library having an increased role as an information clearinghouse.

2011 Proposed Activities

During 2011, the typical activities related to the Iowa LTAP library will continue. Relevant resources will continue to be acquired and distributed. In addition, the information shared with others will continue to be categorized within the four FHWA program focus areas. As appropriate, the conversion of hard copy documentation into electronic format will also continue. The ability to scan documents (and put them on an FTP site), the addition of links to other libraries on our website, and the effort needed to track the time library and LTAP staff spend to respond to these requests will also be investigated. In many states, the LTAP library services, although they still loan documents, have now become more focused on searching for electronic documents and referring people to an appropriate website.

Task 4: Provide Information and Referral Service

- Objective: provide personal assistance for specific requests
- Measures: number of referrals receiving responses
- Benefits: quick response to specific transportation issues
- Target Audience: all transportation personnel, other LTAP centers, and others that contact Iowa LTAP

LTAP Director Keith Knapp (or his predecessors), Safety Circuit Rider Tom McDonald, Local Roads Safety Liaison Engineer Bob Sperry, and Library Coordinator Jim Hogan provide published information, advice, and referrals to individuals who contact Iowa LTAP for technical assistance or information. In 2010, Georgia Parham also served as a key point of contact and she provided information and referrals. A brief list of examples related to the library information requests and referrals (from June 2009 to 2010) is provided below:

A City of Holstein city council member called to talk about road conditions in the town.

A citizen from Dubuque County called to discuss the Iowa Drainage Law Manual.

Staff from the City of Bettendorf and Woodbury County called to discuss a signing issue in their jurisdiction.

A citizen from Sioux City called to talk about traffic crashes near her home.

A staff member from Muscatine called about crash worthy traffic control devices.

A staff member from Washington called about sign sheeting requirements.

A staff member from Des Moines called to discuss work zone safety apparel.

An individual from the Indiana DOT inquired about training materials. Referred to Indiana LTAP.

A Lieutenant from the Iowa City Fire Department called to inquire about a video on the dangers associated with cutting cable guard rail. An Iowa DOT document on this subject was provided. This document contained links to three Minnesota videos showing actual cutting of the cable. This document was also provided to an Ames FD Deputy Chief and to the Fire Service Training Bureau which will send it to all Iowa FD's. A Kentucky training video on cable guard rail for emergency responders was also obtained and was provided to the Fire Service Training Bureau and will be available in the LTAP Library.

An individual from the Nebraska Department of Roads requested the video "Plowing Tug Hill". DVD was provided.

An individual from the Mississippi DOT inquired about purchasing three of the Iowa DOT work zone safety videos. Videos were provided on loan for copying

An individual from Frito Lay in Michigan called for information about snow plow training. He was referred to Michigan LTAP.

A safety specialist from a NY utility inquired about three of the Iowa DOT work zone videos. He was referred to NY LTAP which has the videos he was interested in.

An individual from EMC Insurance in Des Moines inquired about the availability of videos for policyholders (e.g., cities, counties, contractors). Individual was advised that many cities and counties already use LTAP library and should feel free to share library information with policyholders.

An individual from Monroe County called trying to locate a video he had seen at a Successful Management course. He was referred to the State Library which has the video.

An individual from the copy of Lenexa, KS, inquired about obtaining the Culvert Management System CD and user's manual. Items were provided along with information about the Kansas LTAP for future needs

An individual from the Forward Service Corp. in Madison, Wisconsin called about obtaining the Iowa DOT Work Zone Safety videos. He was referred to Wisconsin LTAP which has the videos.

Nevada LTAP requested the Iowa DOT work zone videos. The videos were provided for copying.

Indiana LTAP inquired about obtaining DVDs of the Iowa DOT work zone safety videos. Since they already had VHS versions of these videos, they were advised that there were no restrictions on copying and they could convert them to DVDs.

A student from New Mexico requested historical information on traffic signals. Some information was provided.

An individual from Mt. Pleasant requested a copy of the Iowa Drainage Law manual. A copy was provided.

The Kansas LTAP requested information on pothole repair. FHWA publication "Materials and Procedures for Repair of Potholes in Asphalt-Surfaced Pavements-Manual of Practice" was provided.

Because of the demand for jurisdiction-specific help with traffic engineering and safety issues, the Iowa LTAP also provides services for individual agencies; including corridor analysis; traffic signal design and timing; traffic impact studies; capacity analysis; safety analysis; school safety programs; signs and markings management; parking operations and roadway geometric design. The center is sensitive about not competing with traffic service consultants.

Proposed 2011 Activities

During 2011, the information and referral services provided by LTAP staff will continue. These activities provide valuable information to people in need and also show how important Iowa LTAP is to many transportation professionals. This activity, however, can also use large amounts of LTAP staff time. A methodology of tracking this time will be investigated.

Task 5: Conduct or Arrange Workshops and/or Training Sessions

- Objective: present quality, timely, relevant subject matter

- Measures: provide training for 2000 Iowa local government workers annually
- Benefits: increase productivity and efficiency, introduce new technologies, share experiences of others, and increase operator skills
- Target Audience: transportation professionals, government managers, first line supervisors, roadway foremen, and equipment operators

The FHWA contract requires that a minimum of 10 workshops be conducted or sponsored by LTAP each year. The Iowa LTAP easily exceeds this requirement. Training opportunities are closely coordinated with the Iowa DOT, FHWA/National Highway Institute (NHI), the Iowa County Engineers Association, the Iowa Secondary Roads Maintenance Supervisors Association, the Iowa Chapter of the American Public Works Association, and other agencies and associations. Many Iowa LTAP workshops are intended for nonprofessionals, such as maintenance supervisors, technicians, equipment supervisors, etc.

In addition to its core workshop offerings focusing on rural and urban issues (e.g., motor grader operations, flagger training, work zone safety training and others), the Iowa LTAP has developed many specialty workshops. Some of these are a direct result of FHWA's expanding mission for LTAP to include jurisdictions with populations greater than 50,000.

Formal training opportunities are typically oriented toward transportation agency needs. When the number of course registrants exceeds the available space, preference is given to staff from Iowa counties, cities, and other local Iowa government agencies. The Iowa LTAP makes a special effort to communicate the offerings to cities with populations of 3,000–5,000. In addition, the Iowa LTAP is a part of ISU Extension, as noted in the proposed budget. As a result, more training activities are being focused on communities now than in the past.

The need for new workshops is identified through several sources. These include feedback from workshop evaluations, special questionnaires and surveys; as well as suggestions from the LTAP advisory board; the Iowa County Engineers Association - Special Schools Committee; the Iowa Chapter of the American Public Works Association - Educational Committee; other organizations of local government officials and ISU Extension. The Iowa LTAP also works with the Iowa DOT to provide training that is needed by its staff, but is relevant to all levels of government. More and more professional societies, etc. are also offering training efforts online as webinars. Iowa LTAP has and will continue to offer online training. In some cases, Iowa LTAP will also partner with others to offer these courses.

To fill a gap in the training needs of secondary roads maintenance supervisors, the Iowa LTAP has also been active in supporting the Iowa Secondary Roads Maintenance Supervisors Association (ISRMSA). ISRMSA was organized in 1996, prompted by attendees at an earlier LTAP-sponsored equipment safety workshop. Planning and organizing meetings include representatives from all counties in Iowa, along with the Iowa County Engineers Association. In 2010, Iowa LTAP assisted with the organization and offering of the 14th annual ISRMSA conference.

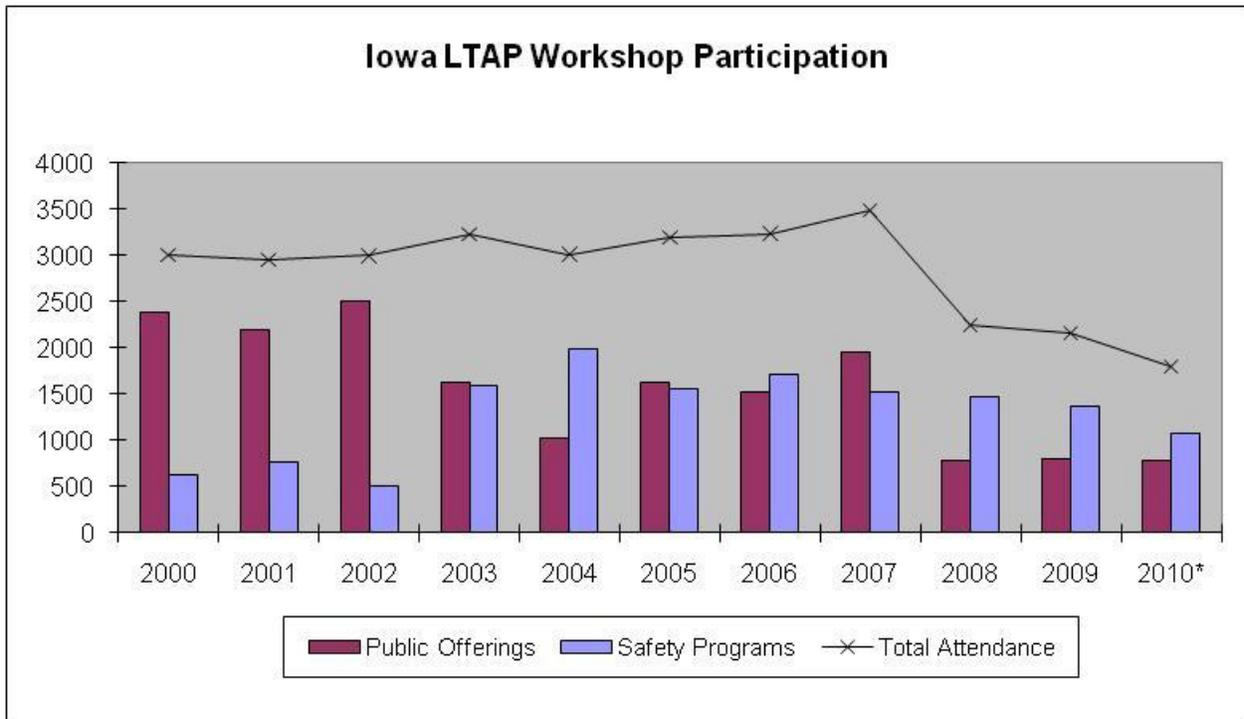
Attendance History

Recent attendance history is shown within the table below and the graph on the next page. The final estimate for attendance at LTAP events during 2009 is also included and is what was reported to the FHWA at the end of the year (with an additional 146 participants in the 2009 Snow Roadeo). It would appear that budget cuts and travel restrictions are likely having an impact. The attendance numbers for 2009, however, are not much lower than those in 2008.

The attendance shown for 2010 is a combination of January through September event participants and an estimate (based on last year) for October to December. Overall, during 2010 the Iowa LTAP will hold 72 events with a total estimated attendance of approximately 1,796. There are 12 events that will be held from October 1, 2010 to December 31, 2010. Overall, based on the numbers below, it is expected that the attendance at LTAP events in 2010 will be at least 17 percent lower than 2009. This downward trend is likely a result of the economy, continued budget cuts and travel restrictions, a focus on individual on-site/on-demand sessions, and reduced staffing at local Iowa transportation agencies and also the Iowa LTAP. Part of the

Year	Public Offerings	Safety Programs	Total Attendance
1997	2370	254	2624
1998	2408	774	3182
1999	3015	714	3729
2000	2382	631	3013
2001	2196	764	2960
2002	2500	500	3000
2003	1627	1602	3229
2004	1026	1990	3016
2005	1633	1560	3193
2006	1524	1716	3240
2007	1961	1532	3493
2008	784	1467	2251
2009	796	1367	2163
2010*	788	1081	1796

*2010 attendance includes an estimate, based on past data, for October to December. Some of the potential reasons for the difference 2009 and 2010 attendance are noted in the text above.



*2010 attendance includes an estimate, based on past data, for October to December. Some of the potential reasons for the difference 2009 and 2010 attendance are noted in the text above.

difference could also be related to the changeover in personnel at the Iowa LTAP, and the potential that a different approach was used in the calculation of attendance. Several of the initiatives discussed in this proposal are targeted at improving the number of participants at LTAP training events. A few of the workshops presented in 2010 are described in the following section of this report.

Select 2010 Activities

Motor Grader Operator Training (MoGO). Demand for this workshop has stabilized at five to eight programs each summer, with 157 attendees in 2010. Iowa LTAP began the MoGO workshops under the tutelage of the Nebraska Technology Transfer Program in 1989. In 1990, Iowa LTAP developed its own workshop and formed a cadre of instructors. As of September 2010, Iowa LTAP has recorded training for 4,979 motor grader operators (although some have attended more than once) from Iowa counties and several different cities. The instructors are county and city employees and most are motor grader operators themselves. One workshop is held each year to train these instructors. Iowa LTAP plans to continue this workshop, operating on a pay-as-you-go basis as the demand continues.

Snow Plow Operator Training and the Snow Roadeo. Iowa's Snow Plow Operator Training (SPOT) and Snow Roadeo are typically offered during one week in September. SPOT provides snow plow training to new operators and a refresher to those operators with more experience. It is a course taught and designed by snow plow operators, and they are supported by more experienced trainers from the jurisdictions that attend. It allows new snow plow operators the

ability to use their own equipment on a closed course. In 2010, there were approximately 105 students and trainers that registered for SPOT.

The Snow Roadeo follows SPOT and offers operators an opportunity to challenge their skills when operating trucks, motor graders, and loaders. This event typically attracts teams from city and county shops around the state. More than just a good time, preparing for and participating in the Roadeo is a great way to develop a shop's vehicle maintenance program and increase operators' safety awareness. Contestants test their knowledge and skills through a written exam, a timed vehicle-defect identification exercise, and a driving test on a closed course that simulates various job requirements and driving situations. In 2010, the Snow Roadeo had approximately 89 participants, 12 vendor displays, and 30 to 40 volunteer judges and planners.

Iowa's Public Employees Leadership Academy. The Iowa LTAP, in collaboration with various city and county government representatives, is working to develop the Iowa Public Employees Leadership Academy, a training program designed to create better leaders and supervisors for Iowa's public agencies.

The academy consists of eleven core modules:

- Supervisory Techniques and Skills
- Team Development
- Basic Management Skills
- Effective Communication Skills
- Leadership Skills
- Community Service/Customer Orientation Skills
- Legal Understanding
- Operations and Maintenance
- Fundamentals of Government
- Finance
- Resource Management Skills

“We see this an educational forum for cities and counties who don't have the opportunity to provide training for people who are moving up through their agency or who simply want to move into other leadership positions,” says Brent Hodne, Public Works Director for the City of West Des Moines and member of the academy's steering committee.

The modules that have been developed and that will be developed in the future will be available online at the ISU non-credit training website, managed by continuing education staff. Three additional modules have also been proposed for development in 2011. The potential subjects of these modules are emergency management, winter maintenance, and project management.

Proposed 2011 Activities

The Roads Scholars Program began in 2002. This program recognizes transportation workers who demonstrate a commitment to continuing education. It also provides a tool to help supervisor's schedule ongoing staff training. As participants accumulate contact hours in the Roads Scholar training curriculum, they reach different levels of achievement: Roads Scholar I

and II, Senior Roads Scholar, and Master Roads Scholar. Since January 2002, there have been 15,963 Roads Scholar participants. To date, 10 people have advanced to the Senior Level and 9 have achieved the Master Level.

The administration of the Roads Scholar program requires a relational database and an online interface. Unfortunately, the Scholars numbers noted in the previous paragraph have not changed between 2009 and 2010. In the summer of 2010, it was determined that the platform on which the LTAP/CTRE relational database was based had become unstable and it is suspected that this, and staffing issues, impacted the consistency of the updates to the database. In 2010 and 2011, the platform will be redesigned, as noted in the “LTAP Operations: Staffing and Major Initiatives” section of this report. In addition, attendance figures will continue to be warehoused and shortly after the completion of the new relational database platform all the LTAP files will be reviewed and attendance records added (as needed) to the system. This is a significant undertaking and the outcome will depend upon the accuracy of the attendance records kept by Iowa LTAP. Overall, the courses that can be used for credit in the Roads Scholars program should also be reviewed in the next year or two.

The workshops, training, and conferences planned for 2011 are listed below. Roads Scholar participants can earn credit from many of them. The FHWA focus area for each of the courses, where appropriate, is also noted. There has been a trend at Iowa LTAP to provide smaller training events located around the state as opposed to larger scheduled. More recently, however, for economic reasons, more online events are being requested. Overall, during the next few years the economic feasibility of each course, including the level of subsidy provided, needs to be evaluated on a case-by-case basis.

<u>BASIC COURSE OFFERINGS (FHWA FOCUS AREA)</u>	<u>POTENTIAL NUMBER OF EVENTS</u>
• Flagger workshops (Safety)*	15-20
• Work zone safety (Safety)*	10-15
• Designing for ADA (Workforce Development)	4-6
• Motor Grader Training (MoGo) (Workforce Development)*	4-5
• Signs and pavement markings (Safety)	2-3
• Local agency safety (Safety)	4-5
• Supervisory Techniques and Skills (Workforce Development)**	Online
• Team Development (Workforce Development)**	Online
• Effective Communication Skills (Workforce Development)**	Online
• Leadership Skills (Workforce Development)**	Online
• Fundamentals of Government (Workforce Development)**	Online
• Resource Management Skills (Workforce Development)**	Online
• Operations and Maintenance (Workforce Development)**	Online
• Basic Management Skills (Workforce Development)**	Online
• Community Service/Customer Orientation Skills (Workforce Development)**	Online

- Legal Understanding (Workforce Development)** Online
- Finance (Workforce Development)** Online
- Additional Leadership Academy Modules
(Workforce Development)** 3 (Online)
- Snow Plow Operator Training (SPOT)
(Workforce Development) 1-2
- Snow Roadeo 1
- Streets & Roads Conference* 1
- Math Fundamentals (Workforce Development)* Online

The content of the math fundamentals course noted above will be evaluated and redesigned. The best method to use for sharing the content of this course will also be explored. The feasibility of offering this completely online, as currently proposed, will depend on a number of factors. A combination of methods to provide this class, however, will also be considered (e.g., one or two days of material onsite, some online material, etc.).

OTHER POTENTIAL COURSE OFFERINGS

(One or more of the following subject courses to be held if feasibility investigation results show a positive outcome for speaker availability and economic feasibility (including estimated attendance))

- Guardrail Maintenance (Infrastructure Mgmt.)
- Pavement Maintenance and Reconstruction (Infrastructure Mgmt.)
- Winter Maintenance Training (Workforce Development)
- Traffic Signal Design and Management (Infrastructure Mgmt.)*
- Bridge Management or Inspection (Infrastructure Mgmt.)

*Core Courses for Roads Scholar Program requirements

** Leadership Academy Modules

The potential workshops and training sessions noted above (and others, as appropriate) may be offered as they become available and feasible. Additional evaluations or surveys may also identify other subjects. In addition, as noted in the previous discussion of “LTAP Operations: Staffing and Major Initiatives” the Iowa LTAP may also assist with, if beneficial to local transportation agencies, the development of events connected to its industry and professional society partners.

Task 6: Evaluate Effectiveness of Program

- Objective: evaluate service based on customer satisfaction
- Measures: course evaluations, questionnaires, input from professional organizations and employers and personal contacts
- Benefits: improve service and responsiveness
- Target Audience: government agencies and employees

Evaluations are currently completed by attendees at some LTAP-sponsored workshops. These evaluations provide direction to instructors and to the Iowa LTAP regarding workshop

modifications and the provision of workshops on additional subjects. Each year the Iowa LTAP also completes a Center Assessment Report (CAR) and Program Assessment Report (PAR) for the FHWA. The PAR is especially relevant to this proposal because it is organized around the four FHWA program focus areas previously described. These focus areas are noted, as appropriate, within each task description.

In the past, Iowa LTAP has also periodically surveyed *Technology News* readers to assess their training needs and the program effectiveness. Although the overall evaluations are generally high, the response rate to the survey is generally very low. The survey completed in 2010 was described in the “LTAP Operations: Staffing and Major Initiatives” section of this report. It has also been proposed in 2011 that a newsletter advisory board (see the Task 2 discussion) be created to provide suggestions for revising and enhancing the survey instrument and for encouraging broader response.

LTAP Board

In addition to workshop evaluation forms and surveys, the Iowa LTAP has another useful avenue for feedback and evaluation: the advisory board. The advisory board’s function has evolved from reviewing Iowa’s LTAP to operating as a working board, assisting the LTAP director in developing the program and setting standards for measuring its effectiveness. It also provides feedback to the director on the annual program as it progresses. The board consists of city and county representatives and agency (Iowa DOT and FHWA) representatives. Board members serve two-year terms. When a board member rotates off the board, the agency or organization that he or she represents is asked to provide a replacement. It is possible for the same person to be re-appointed.

The current Iowa LTAP advisory board is composed of the following individuals:

Agency Representatives

Donna Buchwald, Iowa DOT

Joe Jurasic, FHWA

Wade Weiss, Greene County

Charlie Purcell

Local Systems Representative and LTAP Contract Administrator

Iowa Division

Iowa Highway Research Board

Iowa Department of Transportation Local Systems

Local Government Representatives

Bret Hodne, West Des Moines (Chair)

Gary Fox, Des Moines

Ron Knoche, Iowa City

David Shannahan, Cherokee County

Christy VanBuskirk, Keokuk County

Roger Schletzbaum, Marion County

Greg Parker, Johnson County

Public Works Director

Transportation Director

City Engineer

County Engineer

County Engineer

County Engineer

County Engineer (alternate)

Tim Herrstrom, Boone County
Keith Knapp, InTrans

Road Maintenance Foreman
LTAP Director

The board met on October 4, 2010, and gave Keith Knapp direction related to management of the Iowa LTAP and some of the activities proposed for completion in 2011.

Proposed 2011 Activities

During 2011, the objective will be to evaluate the quality of the majority of the LTAP-sponsored courses/events. These evaluations will need to be designed and offered in a manner that allows these to be of the most value to the developers of the workshops. Examples include the completion of evaluations for a portion of a course (while it is ongoing) or allowing for electronic evaluation. On-site in-person evaluative questions by the Director during course offerings may also occur. A discussion of how the advisory board operates, interacts with Iowa LTAP staff, and rotates or renews its membership may also be useful in the coming years.

Task 7: Perform Highway Safety Circuit Rider Tasks

- Objective: provide specific safety training at the local level for engineers, supervisors/managers, technicians, and equipment operators
- Measures: number of workshops and attendees
- Benefits: improve the safety knowledge of the local government employees and participants
- Target Audience: transportation workers in local agencies, utilities, and the private sector

Since 1983, the Iowa LTAP has conducted transportation safety-related workshops and conferences and distributed safety technical materials. Although these technology transfer activities have been beneficial to many local transportation officials, it has been difficult to reach workers at all levels in all communities and counties through workshops. Since 1989, the Iowa LTAP has included the highway safety circuit rider, a full-time employee who visits counties and cities to present workshops and provide safety materials at local facilities. Tom McDonald, formerly of the Iowa DOT and now with InTrans, has been Iowa's Safety Circuit Rider since 1998.

The safety circuit rider program allows local agencies to access quality transportation safety training and information at a low cost and without requiring travel by staff. The circuit rider presents workshops at local sites, scheduled conveniently to meet agency needs. Common presentation sites include garages, break rooms, council chambers, and other on-site meeting areas. Popular workshop topics include flagger training, work zone safety, and sign management. Lengths of presentations are also modified to meet agency requirements, varying from one hour to a full day.

The safety circuit rider's primary responsibilities have remained the same since the start of this effort in 1983. They include the following:

- Plan, organize, and facilitate the annual series of Iowa DOT work zone safety workshops
- Plan and administer periodic conferences, as requested, on specific topics such as signing, pavement markings, and worker safety coordination
- Prepare and present transportation safety-related training on such topics as flagger operations, work zone traffic control, and permanent signing and pavement markings
- Arrange and promote specialized workshops on topics such as excavation safety and mower safety
- Contribute to research studies on safety-related issues, such as pavement edge drop-off and automated enforcement of traffic signals
- Participate in numerous association meetings and conferences and provide presentations, demonstrations, and section moderator services when requested
- Research projects that will include, but not be limited to, safety edge evaluations, low-cost safety mitigation evaluations for low volume unpaved rural roadways, and road safety audits for local Iowa governments

Proposed 2011 Activities

The activities connected to the Highway Safety Circuit, because of its success, will remain the same. The funding for this effort supports many essential Iowa LTAP activities/tasks. The output and impact of these activities are reported throughout this document (e.g., training courses, referrals, etc.).

EVALUATION

The evaluation of Iowa LTAP is a contract item and is described under “Task 6: Evaluate Effectiveness of Program”, in the Ongoing 2010 and Proposed 2011 Activities section of this proposal.

ESTIMATED EFFORT

Because InTrans manages a number of programs and projects, ranging from basic research to training programs, Iowa LTAP draws from a staff with a broad set of skills and capabilities. A number of InTrans staff are involved in the administration, development, and presentation of LTAP activities, each working within their areas of specialization, such as publications, accounting, workshop coordination, etc.

InTrans staff, with a portion of their time dedicated to Iowa LTAP in 2010 and 2011, are listed below.

LTAP Director

Keith Knapp, the LTAP Director, will provide overall guidance, direction, and focus of resources available to the Iowa LTAP. The director will identify opportunities for adding to the services provided by Iowa LTAP, focusing on workshops related to transportation professionals and on areas of need as they are identified when conducting workshops and meeting with the Iowa LTAP advisory board. The director will focus on implementing the LTAP strategic plan and developing strategies for evaluating the LTAP program. He will also develop, instruct, and

organize/plan training courses/events as needed. The director will attend the January and July annual LTAP meetings. For 2011, it is anticipated that the director will be funded at a 75 percent effort from the LTAP budget.

Financial Coordinator

Jan Graham tracks finances and monitors expenditures, including LTAP funding and workshop revenues and expenses. Jan reviews expenditures and budgets and acts as a liaison with the accounting department at Iowa State University. Jan is funded at 10 percent by the LTAP budget.

Safety Circuit Rider

Tom McDonald, P.E., Safety Circuit Rider, is responsible for developing and presenting various workshops, such as Flagger Safety and Signing and Pavement Marking. In addition, he provides advice in crash analysis. The circuit rider presents various other workshops and programs on work zone safety and related topics. Tom serves as a member of the Iowa DOT "Traffic Safety Alliance Team" and as a liaison to local governments. Iowa LTAP will fund him at 50 percent in 2011.

LTAP Event/Secretarial Support

Several staff will support the provision of Iowa LTAP events. It holds 50 to 80 formal training sessions per year. InTrans staff present many of the workshops, but several events use non-InTrans staff as presenters. Managing the logistics of training programs and coordinating with on- and off-campus facilities are among the responsibilities of these event coordination staff. These staff are also responsible for data entry into the LTAP program management system and for providing summary reports for the LTAP activities.

At this point in time it is expected that 50 percent of Kristi Angaran's salary will be supported by LTAP. Other tasks related to event support will be completed by the LTAP Director, existing LTAP or InTrans staff, and/or student assistance. No more than 10 percent of the salary for one additional staff (except the student assistance) will be supported by LTAP.

Computer Support

James Musal maintains InTrans's computer network, including the Internet server. He supports computer hardware and software needs of the LTAP staff for specific projects, and for the computer training facility. Three percent of James's time is budgeted for LTAP.

Library Coordinator

The library coordinator is responsible for managing Iowa LTAP publications, stocking the library with materials of interest to local agencies, distributing videotapes and publications, and advising local governmental agencies. This position is a part-time Iowa LTAP employee who typically works 10 to 13 hours per week and sometimes represents LTAP at professional conferences and workshops.

Publications Staff

InTrans's publications staff currently produces *Technology News*, the LTAP web page, the Roads Scholar database/web page/awards, workshop brochures and certificates, and other LTAP publications. This group is administered as a service cost center. Instead of reflecting a percentage of individuals' time, the budget includes a line item for publications services based on rates established for this cost center. The proposed budget for publication tasks will be applied to either InTrans publication staff or others with comparable skill to complete the tasks noted above.

PROPOSED BUDGET

The proposed 2011 budget currently reflects an amount equal to the 2010 budget. Salaries and tasks will be redistributed based on the changes in staff. Additional cost savings or funding sources will be pursued in the coming years. Some of the initiatives described in this report may assist with these activities. The trend in funding for LTAP is shown on the next page. The total 2011 Iowa LTAP funding request includes the following (more detail is provided in the budget in Appendix A):

FHWA	\$140,000	(same as 2010)
Iowa DOT 402 Safety funds	\$50,000	(same as 2010)
IHRB	<u>\$130,000</u>	(same as 2010)
Sub total	\$320,000	

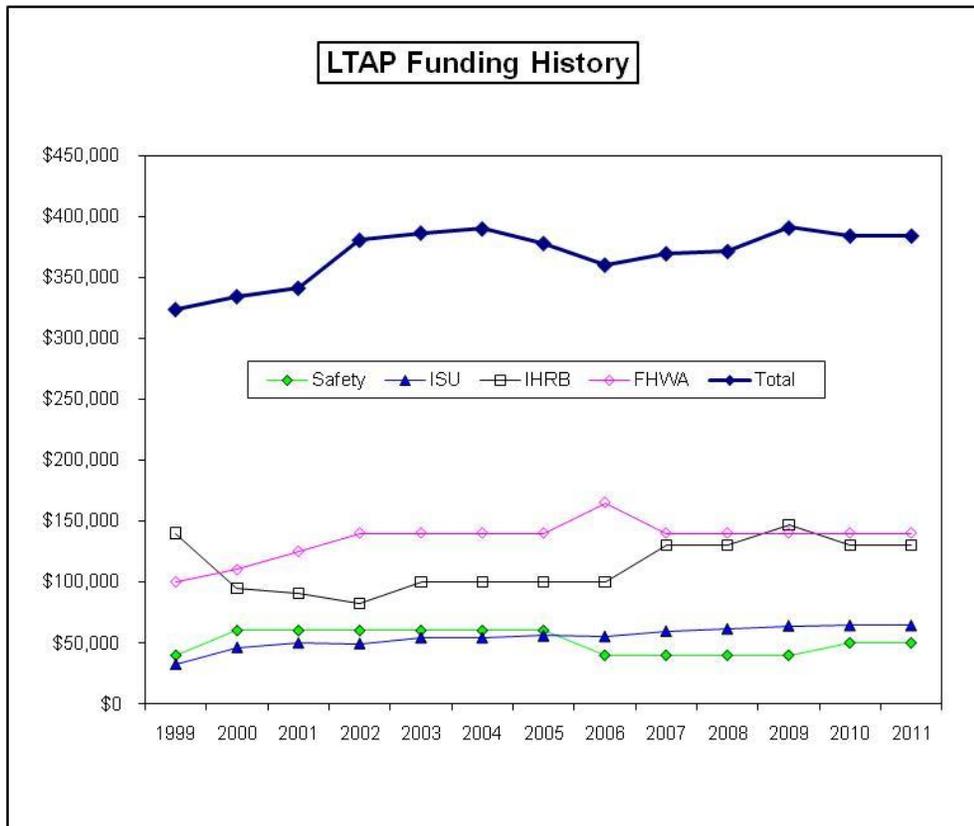
Other program related funding:

ISU Extension to Communities	<u>\$64,192</u>	(same as 2010)
Total	\$384,192	

Budget considerations include:

1. Georgia Parham's retirement from a 90 percent LTAP staff person has been replaced by an increase in Kristi Angaran's salary support from 5 percent to 50 percent. The remainder of this funding will be distributed to the Director, other InTrans staff, and student employees. Changes in the individuals serving in these roles will lead to changes in costs based on their actual salaries and fringe benefits.
2. Increased minimum wage and increased level of effort for undergraduate student assistants needed to support the program (e.g., basic clerical support for library distribution, database updating, and reception)
3. In 2011, LTAP will produce four issues of the newsletter. The budget also includes a minimal amount of funding for a new *Technology Newsletter* advisory group which will require a more deliberate, year-long planning based on stakeholder input to better address readers' needs in a timely manner. This group is expected to assist in prioritizing and directing the reduced production content to target the most critical needs.

CA Yr	Safety	ISU	IHRB	FHWA	Total
1997	\$40,000	\$35,663	\$109,912	\$110,000	\$295,575
1998	\$40,000	\$31,095	\$140,000	\$110,000	\$321,095
1999	\$40,000	\$32,650	\$140,000	\$100,000	\$323,644
2000	\$60,000	\$46,382	\$95,000	\$110,000	\$334,332
2001	\$60,000	\$49,934	\$91,000	\$125,000	\$341,284
2002	\$60,000	\$49,500	\$82,000	\$140,000	\$380,700
2003	\$60,000	\$54,234	\$100,000	\$140,000	\$386,570
2004	\$60,000	\$54,231	\$100,000	\$140,000	\$389,989
2005	\$60,000	\$55,820	\$100,000	\$140,000	\$378,019
2006	\$40,000	\$55,301	\$100,000	\$165,000	\$360,301
2007	\$40,000	\$59,608	\$130,000	\$140,000	\$369,608
2008	\$40,000	\$61,488	\$130,000	\$140,000	\$371,488
2009	\$40,000	\$63,937	\$146,863	\$140,000	\$390,800
2010	\$50,000	\$64,192	\$130,000	\$140,000	\$384,192
2011	\$50,000	\$64,192	\$130,000	\$140,000	\$384,192



Overall, as noted in the past, Iowa LTAP is a good investment for the IHRB. In a 1994 study, *The Study of Benefits, Accomplishments and Resources of LTAP* (publication no. FHWA SA 94-037), the FHWA documented a benefit-cost ratio of 8:1; for every dollar invested in LTAP, there is an 8 dollar return. For the IHRB investment of \$130,000, there is an expected benefit return of over one million dollars.

PERIOD OF PERFORMANCE

This proposal is for the calendar year January 1, 2011 to December 31, 2011.

REPORTS

An annual report is prepared for the IHRB and presented at the meeting when the proposal is reviewed and approved. The report of 2010 activities is incorporated within this proposal for 2011, allowing the IHRB to simultaneously review and compare Iowa LTAP's 2010 performance and accomplishments with its proposal for 2011. The bulk of the annual report is included within the seven tasks described in the "Ongoing and Proposed Activities" section. In addition, two annual reports are prepared and submitted to Central Office Federal Highway Administration in Washington D.C. These reports are the Center Assessment Report (CAR) and the Program Assessment Report (PAR). The LTAP Director is responsible for preparing and submitting these reports and providing a copy each to the Iowa DOT contract administrator and the Iowa Division of Federal Highway Administration.

PROPOSED IMPLEMENTATION

Because this proposal is for an outreach program, not a research project, the implementation strategies are incorporated within the task descriptions in the "Ongoing and Proposed Activities" section.

PRINCIPAL INVESTIGATOR

Keith Knapp, Director of the Iowa LTAP, is the Principal Investigator for this proposal and its related activities.

Dr. Keith Knapp has more than 20 years of experience in transportation-related training, outreach/extension, and research. He has created, offered, and/or taught over 40 professional development courses throughout the United States, and is also currently the Director of a multi-state Deer-Vehicle Crash Information and Research Center. His professional development training courses have focused on many subjects. Some of them include the Highway Capacity Manual, signal design and operation, urban street design, traffic fundamentals, neighborhood traffic, roundabouts, parking lots and access, intersection safety and operations, bicycle and pedestrian facilities, two-lane rural roadway design, traffic impacts of land development and the application of signal evaluation software. Prior to joining the Iowa Local Technical Assistance Program, Dr. Knapp was the Director for Transportation Safety Engineers at the Center for Rural Safety at the University of Minnesota and a Research Scientist at the Texas Transportation Institute. His past training and education experience was acquired as an Assistant Professor of Engineering Professional Development at the University of Wisconsin and an Assistant Professor of Civil Engineering at Iowa State University. While at the University of Wisconsin, his focus was the development of engineering development courses and he was the program director for a number of courses each year that were offered throughout the United States (e.g., Orlando, Las Vegas, Boulder, Seattle, etc.). He is a registered professional engineer in Iowa.

Dr. Knapp's research focuses on the safety and operational impacts of factors (e.g., geometrics, intersection, weather, polices, etc.) that influence the roadway environment. Most of his research

has resulted in application tools (e.g., guidelines, analysis procedures, etc.). His current and recent research projects have focused on horizontal curve run-off-the-road crashes, centerline rumble strip safety impacts, rural safety and human behavior, intersection safety, and local road signing. He recently finished a report on the fatality impacts of changes in rural roadway safety policies (e.g., seat belt laws, etc.).

APPENDIX A
DETAILED 2011 PROPOSED LTAP BUDGET

**2011 LTAP Budget
Budget Estimates
January 1, 2011 - December 31, 2011**

Staff Detail	Level of effort	# of mos	Total Project Amount	Requested Iowa DOT Funding for LTAP			Related Program
				FHWA	IHRB	Safety 402 Funding	ISU University Extension Match
Professional & Scientific Staff							
Keith Knapp	75.00%	12	\$68,513	\$10,962	\$19,925		\$37,626
Fringe benefits			\$24,253	\$3,881	\$7,053		\$13,320
Tom McDonald, Safety Circuit Rider	50.00%	12	\$40,715		\$11,408	\$29,308	
Fringe benefits			\$14,413	\$0	\$4,038	\$10,375	
Financial Coordinator	10.00%	12	\$7,053	\$3,526	\$3,526		
Fringe benefits			\$2,497	\$1,248	\$1,248		
Computer Support	3.00%	12	\$1,127		\$1,127		
Fringe benefits			\$399	\$0	\$399		
Library Coordinator	33.00%	12	\$16,955	\$8,477	\$8,477		
Fringe benefits			\$6,002	\$3,001	\$3,001		
Event coordinators	10.00%	12	\$4,493	\$2,247	\$2,247		
Fringe benefits			\$1,591	\$795	\$795		
Merit (Support) Staff							
Secretary-Event Assistant	50.00%	12	\$19,307	\$9,653	\$9,653		
Fringe benefits			\$9,364	\$4,682	\$4,682		
Student Research Assistants							
R.A. Student (MS car)							
#							
1	@	25%	\$3,000	\$1,500	\$1,500		
Fringe benefits			\$399	\$200	\$200		
Computer Assistant							
Student office assistants/hrs:							
1040	@	\$13.50	\$0		\$0		
Student fringe @4.6%			\$8,580		\$8,580		
			\$395	\$0	\$395		
Total Personnel			\$229,054	\$50,172	\$88,254	\$39,682	\$50,946
Budget Summary by Category							
Salaries/Hourly			\$169,742	\$169,742	\$36,366	\$66,443	\$29,308
Payroll Benefits			\$59,313	\$59,312	\$13,807	\$21,811	\$10,375
Travel-Domestic							
Outreach and Safety Circuit Rider-in state travel			\$4,800	\$11,600		\$11,600	
Monthly Van lease			\$6,800				
Out-of-state trips							
LTAP National Conference			\$2,200	\$7,050	\$7,050		
LTAP Directors Mtg. in D.C.			\$2,000				
Safety Circuit Rider -LTAP commttee meeting			\$2,000				
2 Regional LTAP meetings			\$850				
Supplies/Materials				\$5,000	\$5,000		
Project supplies			\$5,000				
Other Direct Costs							
including # of issues of Tech News:		4					
Telecommunication Charges (basic, toll, data)			\$1,493	\$187	\$1,306		
Computer Usage (data lines)			\$680	\$680	\$0		
Printing/Copying (TNs @\$1500 ea and \$900 copies)			\$6,900	\$6,900			
Communications Services (editing, web, publications)			\$35,336	\$34,600	\$736		
Postage (mostly Tech News and library shipments)			\$5,000	\$5,000			
Other (software licenses, leases, hospitality, etc.)			\$2,800	\$1,521	\$1,279		
TOTAL DIRECT COSTS			\$304,914	\$111,111	\$103,175	\$39,682	\$50,946
Indirect Costs	@	26.0%	\$79,278	\$28,889	\$26,825	\$10,317	\$13,246
TOTAL ALL COSTS			\$384,192	\$140,000	\$130,000	\$50,000	\$64,192

1. ISU employees are salaried. Estimate is based on the FY2011 fiscal year's base rates. No increases were received by faculty or professional staff for FY2011; merit staff did receive increases as required by contract and will likely have raises next year so the estimate continues to add 3% to the support staff). Annual increases (July 1) and/or midyear promotions or rate changes may affect the level of effort possible under this budget.

2. Fringe rates are estimated as follows: Faculty - 29%; P&S - 35.4%; Merit - 48.5%; Research Asnts - 13.3%; student hourly - 4.6%; and non student hourly - 12%. These are estimates that are recommended by ISU annually to be used for budgeting purposes only; actual fringe costs will be charged to the account.

3. The indirect cost rate is determined by a negotiated agreement between Iowa State University and the Department of Health and Human Services. A link to it (Facilities and Administrative Cost Rate Agreement) and other basic institutional information can be found at <http://www.ospa.iastate.edu/ProposalProcess/InstitutionalInformation.aspx.html>

4. This program requires administrative and communications staffing and the purchases of office supplies and other miscellaneous goods and services to administer and implement this center and the outreach program that includes conducting workshops, generating newsletters and other publications, administering a lending library, and managing a website.

5. This program requires travel plus supplies/materials to administer and implement this outreach program which entails conducting various workshops across the state.