
LTRC

Louisiana Transportation Research Center

Peer Exchange

Final Report

**Baton Rouge, Louisiana
September –October 2003**



LOUISIANA PEER EXCHANGE
September 29 – October 1, 2003
Baton Rouge, Louisiana

INTRODUCTION

Federal regulations (23 CFR 420 Subpart B) require that each state must agree to peer reviews of its Research, Development, and Technology Transfer management process to be eligible for managing State Planning and Research (SP&R) funds.

The Federal Highway Administration (FHWA) interpreted the peer meetings to be more of an exchange of information regarding the various practices used by states to manage their RD&T² programs. The intent was to strengthen weak programs and enhance strong programs with a sharing of ideas. The peer exchange teams are typically composed of state research managers, FHWA, university or industry personnel, at least two of which must have received training provided by FHWA and are maintained on a list of qualified peer exchange team members.

Peer exchanges are generally conducted in an informal atmosphere and last 2-4 days. Techniques used to gather information include discussion of individual state practices, informal interviews with users of the RD&T² products and brainstorming sessions on the focus areas of interest to the host state. Open ended questions are used during the interview sessions to solicit the strengths and weaknesses of the program from the user's perspective.

LOUISIANA PEER EXCHANGE TEAM

Wes Lum – (Team Leader) - California Department of Transportation
Beth Bieryla – Pennsylvania Department of Transportation
Dick McReynolds – Kansas Department of Transportation
Joe Button – Texas Transportation Institute
Jamie Setze – Federal Highway Administration - Baton Rouge, Louisiana
Freddy Roberts – Louisiana Technical University
Crawford Jencks – Transportation Research Board
Chris Abadie – Louisiana Transportation Research Center
Mark Morvant – Louisiana Transportation Research Center
Kirt Clement – Louisiana Transportation Research Center
Harold “Skip” Paul – Louisiana Transportation Research Center

ADDITIONAL ATTENDEES

Joe Baker – Louisiana Transportation Research Center
Michael Boudreaux – Louisiana Transportation Research Center
Mary Stringfellow – Federal Highway Administration – Baton Rouge, Louisiana
Angela Benn – Louisiana Transportation Research Center

FORMAT

The peer exchange followed the attached agenda which included presentations by LTRC Administration, LTRC Research, LTRC Technology Transfer, CALTRANS, Kansas DOT, Penn DOT and ALF. Round table discussions were held on the following topics:

- Self Generated Funding/Research Partnerships
- Performance Measures/Indicators
- Research Implementation, Best Practices

The results from all presentations, interviews, and focus sessions were used by the exchange team to answer each of the final report objectives.

FINAL REPORT OBJECTIVES

1. What opportunities do you see for improving/enhancing LTRC programs and its research management process?

Wes Lum

- Recommend LA DOTD consider electronic distribution of reports to save printing and mailing overhead costs.
- LA DOTD consider databases from Research in Progress and Wisconsin DOT
- LA DOTD consider library services tied to Midwest Library....

Beth Bieryla

- Increase the pooled fund participation to help leverage cost.
- Use the RPIC panel to help determine project costs.
- Use performance measures to report on the previous year's program and/or the current year program.
- Use upper level management throughout the department to help gather additional funding.
- Use of the two page Implementation Report as a marketing tool.
- Include a marketing plan or Public Relations Students in University Research projects.
- May want to do a benefit/cost analysis to determine project priority and/or project selection.

Dick McReynolds

- Change performance measures process to measure things that more directly affect the goals of performing applied research, i.e. implementation of research results.

- Research partnership opportunities – utilize new ones discussed as appropriate.

Joe Button

- Involve field engineers and university researchers in the project selection process.
- Keep using Louisiana universities to conduct research.
 - Supports higher education
 - Produces students particularly valuable to LADOTD
 - Provides practical experience for professors.
- Consider creating a graduate student support program where LADOTD employee completes MS in one year while working on a LADOTD research project for the thesis.
- Most DOT research is applied, set aside a given amount of funding for basic (fundamental) research – high-risk but potential high payoff.

Jamie Setze

- Track how each “Champion” manages their piece of the pie.
- Learn what other departments in the colleges can be partners in research.
- Reach out to other government agencies to build partnerships.
- Explore training opportunities for engineers to learn marketing skills.

Freddy Roberts

- PennDOT management techniques using multiple performance measure tools lends good guidance for further development of LTRC’s performance measures.

Crawford Jencks

- Partnerships – take advantage of other state or federal agencies who have common problems to help sponsor research.

Mark Morvant

- LTRC should explore the advantages/disadvantages with paying university contract research by task rather than by time. Researchers would have to document completion of each task prior to payment.
- LTRC should consider exploring more opportunities for expanding research result from involvement in pool funded studies as recommended by DOTD staff. Cost sharing for funding for this additional work could come from the HQ budget with HQ staff responsible for monitoring and implementing results.

- LTRC should actively pursue industry and inter-agency sharing of research costs and implementation of results.
- LTRC should consider allowing private vendors to compete for RFP research if they can demonstrate expertise in this area. We could possibly encourage more joint contracts with state universities and consultants to enhance research results.
- LTRC should consider independent analysis of cost benefit of the research program as related to implemented results. LTRC should evaluate Penn DOT's models for assessing qualitative and quantitative value of research results.

Skip Paul

- Explore and test the use of RFPs without a cost estimate.
- Explore and test paying contracts by task or deliverable.
- We have used limited opportunities to attract outside funding. We should strongly consider the use of research partnerships through interagency transfer, National Science Foundation, Federal Highway Administration, Southeast User/Producer Group, industry and other governmental entities. An enhanced program can be facilitated through the execution of the Expansion Director contract.
- Continue to explore other ways to reduce indirect/overhead costs. Kansas pays only a 5% administrative fee to their universities.
- Evaluate the results of the three LTRC customer satisfaction surveys. Determine potential performance indicators such as program or contractor satisfaction.
- Conduct cost-benefit, life cycle cost analysis or return on investment analysis on all implemented studies if possible. Include these measures in the close-out implementation report.
- Consider an after-action survey of the Project Review Committee members.
- Consider training/education of graduate students as a performance measure.
- Create a research metrics page (performance measures) for the LTRC web site. Metrics for consideration should include: continuing and completed projects, reports published, implementation activities, technical assistance projects, graduate students in the program, C/B, ROI or LCA of studies as a quarterly/yearly bar graph.
- Involve operations personnel in the conduct of research studies.
- Continue to create an initial implementation report as produced by Mike Boudreaux for the exchange. It should define the anticipated products of the study and include barriers to implementation. Solutions to the barriers can be developed then by the PRC.
- Consider including the close-out implementation report which contains the implementation plan, as an attachment to the letter to the directorate responsible for implementation, along with the final report.

- Explore the possibility of a set aside in the construction budget specifically for implementation projects.
- Execute workshops or conferences to “showcase” the implementation of successful research. Workshops similar to the one on slope stabilization are very effective in transferring technology to other operational districts.
- Create an executive level power point presentation (2-4 slides) for each project that has implementation potential including C/B, LCA or ROI.
- Consider awards for successful implementation of research projects.

2. What have you learned from participating in this peer exchange that will help you improve your research program and its management process?

Wes Lum

- Consider conducting a research conference similar to LA DOTD’s Transportation Engineering Conference.
- Consider conducting a customer satisfaction survey.
- Consider incorporating problem statement as conducted in LA DOTD’s Research Problem Identification Committee.
- Consider Division Chiefs and Deputy Directors formalizing research implementation processes. LA DOTD and Penn DOT both have formal commitments to implement at the beginning of the research.
- Consider Penn DOT’s invitation to Quality “ITQ” contractor prequalification process for all of its contract research to universities and consultants.

Beth Bieryla

- Consider the use of state funds to lower indirect costs and university contracts.
- Consider the use of a comprehensive selection committee, including municipal representatives, in developing the Research program.
- Review the implementation database used by LA DOTD and LA FHWA Division Office to report on the percentage of projects implemented.
- Utilize customer surveys to measure performance in research management.
- Consolidate research done in the department.
- Create a standardized evaluation process to choose research projects.
- Have research as a regular agenda item at the District Executive meetings.
- Investigate implementation dollars from FHWA Division Office.

Dick McReynolds

- Evaluate using customer surveys to gauge our performance in research management and training. Surveying training benefits provided after one year (rather than just at end of course) is a very good idea to improve.

- Utilize opportunities for research partnerships that were discussed by different states as appropriate.
- Share Penn DOT ITQ process with our university partners.
- Study Penn DOT Performance Measures Toolbox for potential enhancements to our process.
- Further evaluate creation of a database for research project management to consolidate our spreadsheet based system.
- Explore using the “research capsule” approach (electronically) to inform a broader audience about our new research projects.

Freddy Roberts

- Utilization of Business and Marketing departments within our university system is a great idea for future help in implementation.
- Increase the utilization of pooled funding to facilitate research in areas of little in-house expertise - - coordinating with champion within the department. Empowering them on topics they are interested.
- Explore RFP’s out of state through NCHRP or Pooled fund.
- Include member of legislature on Executive RPIC Panel.
- Encourage cooperative research within state, DNR, cities, parishes.

Crawford Jencks

- “Consider” parts of LTRC program formulation process.
- (From Penn Dot) – I already survey panels, but maybe add contractors.
- Consider expanding role of “AASHTO monitor” on NCHRP panels to include implementation.
- Consider PI briefing of what went right or wrong.

3. What are your overall impressions of how this research peer exchange was conducted? Are you comfortable with this format? Are there some specific elements of your program which may not be adequately covered with this format that you wish to be added?

Wes Lum

The excellent Peer Exchange format and facilitation allowed for fruitful discussion by all parties. The results, documented in this report, are expressed in ideas participants wish to pursue in their organization.

Beth Bieryla

The Peer Exchange was held in an environment that was conducive for sharing ideas and experiences in three important topic areas. I am very impressed with the

LADOTD staff and excited to implement some of these new ideas in Pennsylvania Research.

Dick McReynolds

- The LTRC research peer exchange was an excellent meeting. Thanks for the opportunity to participate. The opportunity to discuss performance measures and implementation procedures was very beneficial and the food and hospitality outstanding.
- Process improvements in work process with university and DOTD staff might occur if interviews with staff were held. These can result in small incremental improvements with other customers that save time/resources from our experience.

Jamie Setze

- I liked the open format structure of the meeting. A good cross-section of the country was represented.

Freddy Roberts

- Excellent mix of people who deal with establishing and managing research programs.
- Program organization was good. We went right to the issues LTRC was interested in and there was plenty of time for discussion as well as presentations.
- The format was flexible for interested local people as well as the panel but structured enough to get issues covered.
- The discussion of different formats used to develop research problem statements and how to manage research was very interesting and helpful in evaluating our program at LTRC.
- Hospitality was exceptional.

Mark Morvant

Considering that interviews were not conducted with LTRC customers, in the future I would include adding a District Administrator and a HQ upper level administrator to the team to provide their perspective of LTRC processes.

Skip Paul

- We have used the DOTD staff interviews in the prior peer exchange. For this exchange we wanted to concentrate on the desired areas of improvement. However, the benefit of having a limited number of interviews, in particular with sections where we do not typically have interaction could prove fruitful.

- We have included university faculty on our first peer exchange and this one. They were also members of our policy committee. This has proven beneficial in that they become exposed to other programs and receive a better perspective of the LTRC program. We could also consider DOTD administrators as member of subsequent exchanges.

