

RESEARCH MANAGEMENT PEER EXCHANGE
Hosted by the
Oregon Department of Transportation
August 24-27, 2009

Introduction.

The Oregon Department of Transportation hosted a research management peer exchange August 24-27, 2009. The purpose of a peer exchange is to give research managers from state departments of transportation and the federal government a means to improve the quality and effectiveness of their research processes, both for the host department and the visiting research managers.

Members of the Peer Exchange Team were:

- William Carr, Director, Research and Technology Development, District of Columbia Department of Transportation.
- Jazmin Marie Casas, Transportation Planner, Federal Highway Administration, Oregon Division
- Anne Ellis, Director, Arizona Transportation Research Center, Arizona Department of Transportation.
- Megan Hall, Local Programs/Research and T2 Engineer, Federal Highway Administration, Washington Division
- Bernie Jones, Manager, Research Section, Oregon Department of Transportation.
- Tommy Nantung, Section Manager, Office of Research and Development, Indiana Department of Transportation.

Also participating as an observer was David Whitworth, Transportation Specialist, Federal Highway Administration, Kentucky Division.

To prepare for the peer exchange, the team reviewed documentation describing Oregon's research procedures and program. The team elected Tommy Nantung as team leader. And discussed Oregon DOT's procedures and those used in other team members' respective agencies and organizations. The team interviewed more than 50 people representing all the major areas in which transportation research has been conducted at ODOT with the past few years. The team also met with representatives of Oregon State University through which the majority of our research is contracted.

The team also had the opportunity to meet over Tuesday lunch with ODOT Deputy Director Doug Tindall and FHWA Oregon Division Administrator Phil Ditzler. In addition, we were able to enjoy a Wednesday working lunch with Bob Raths and Jon Oshel representing the Oregon Technology Transfer (T2) Center.

Interviews followed a structured discussion format and provided the exchange team an opportunity to listen to concerns, experiences, technical accomplishments and suggestions from those interviewed. Team members also answered questions posed to them by the people interviewed and the team volunteered information pertinent to the discussions on effectiveness of research project selection and timely completion of reports.

Focus

The team began this peer exchange with a review of the most recent Oregon Peer Exchange conducted in October 24-29, 2004.

The primary focus of the current peer exchange at Oregon DOT was Research Project Selection. However, all aspects of the research program were open for discussion within the context of 12 meetings, and touched on discussions of:

- Research Project Selection.
- Research Implementation
- Marketing and Outreach
- Project management and timely delivery of results.

Major Observations of Peer Exchange Team

- The ODOT research program has very significant support from upper management (Transportation Development Division Administrator, the ODOT Deputy Director, and the FHWA Division Administrator). Upper management acknowledges the contribution of research to ODOT.
- The project selection process is very competitive and involves broad participation both within and outside ODOT.
- Expert Task Group (ETG) members and other participants are very enthusiastic about their participation and involvement in research.
- The quality of research problem statements is generally very good.
- Participants are aware of hot topics in the department and very enthusiastic about proposing problem statements.
- The Research staff are respected and appreciated, and are very supportive in helping customers to develop problem statements.
- The Research program is perceived as a very successful program by the majority of people who were interviewed.
- There are too many problem statements and there is not enough time to review all of them thoroughly.
- The products of Research support ODOT decision making.
- Research projects are viewed as an added resource or source of financial assistance to other ODOT programs.
- Problem statements have higher rates of success when champions are identified early on and they become advocates of the problem statements.
- Some subject area groups expressed frustration at not being able to get their problem statements selected and thereby to advance a research agenda in their area.
- Many good problem statements are not selected.
- ODOT staff see the ODOT Research program as an extension of their in-house capability to solve problems.
- ODOT staff in general like and understand the problem statement process, but could benefit from additional resources and assistance in preparing problem statements.
- The research project selection process uses a bottom-up approach.

- The Research Advisory Committee (RAC) decision process is perceived as a black box. Many participants commented that they didn't understand why one project was selected and another not.
- Other participants expressed concern about keen competition within their ETGs.
- Participants also asked for additional feedback from the Research Section about their problem statements, and seek advice about how to make their problem statements more competitive.
- Participants expressed frustration about the timely completion of projects.
- Participants expressed interest in having more information about transportation research nationally.

Opportunities Identified by the Peer Exchange Team

William Carr, Director, Research and Technology Development, District of Columbia Department of Transportation.

1. Explore university based finance and economic expertise.
2. Formally develop performance measurements for the conduct and administration of the research program.
3. Revisit contracting university based research projects to neighboring and regional universities.
4. Expand *TRU (Transportation Research Update)* to include research program procedures and critical timelines.
5. Explore establishment of a Local Technical Assistance Program (LTAP) center using SPR 1 funds.
6. Document advantages and disadvantages of a quota system for project selection.
7. Share project selection criteria with Peer Exchange members.
8. Assist ODOT in developing a research resource guide on problem statement development.

Jazmin Marie Casas, Transportation Planner, Federal Highway Administration, Oregon Division. Megan Hall, Local Programs/Research and T2 Engineer, Federal Highway Administration, Washington Division.

1. Continue to help evaluate the research management process by exploring other tools used from other FHWA divisions.
2. Work with FHWA divisions and share best practices with DOT Research Section.
3. Assist to help improve the project selection process.
4. Investigate NCHRP reports that deal with performance measures relevant to the research program.
5. Identify a complete list of federal funding sources available for research.

Anne Ellis, Director, Arizona Transportation Research Center, Arizona Department of Transportation.

1. Consider tools such as decision matrices and quota systems to enable project selection (work with ODOT).

2. Participate in preparing the problem statement development guide, including resources such as literature databases and guides for writing problem statements.
3. Consider the ODOT ETG/Stakeholder expert group as a model for Stage 1 Problem Statement evaluation.
4. Diversify ADOT's university participation beyond Arizona universities.

Tommy Nantung, Section Manager, Division of Research and Development, Indiana Department of Transportation.

1. Adopt ODOT problem statement ownership model, which avoids earmark of projects from academia.
2. ODOT Research section has a very strong support (directly) from the ODOT Division Administrator. Create action items aimed at acquiring stronger support from INDOT Districts.
3. Try to approach INDOT Districts for more research program participants rather than only central office personnel.
4. Try to revitalize INDOT Research program towards bottom-up approach.
5. Create closer cooperation with LTAP center for common interests in research.
6. Study advisory committee meetings so that they can be scheduled more suitably based on milestones in the project work plan.

Barnie Jones, Manager, Research Section, Oregon Department of Transportation.

1. There needs to be better follow up about final project selection results from the RAC meeting to ETG members and problem statement submitters.
2. There is a need for better explanation of RAC decisions regarding project selection.
3. There is a need to provide more and better guidance in developing good problem statements.
4. Some ETGs develop problem statements internally as well as reviewing problem statements submitted by others. Other ETGs could benefit by following that practice.
5. There is a need to encourage a more equitable and inclusive distribution of research resources throughout ODOT.
6. There is a growing issue with timely completion of projects which needs to be addressed.
7. There is a need to improve project coordination and to further streamline research project administration with the Oregon Transportation Research and Education Consortium (OTREC).