

Workforce Development: An Update of DOT & University Based Activities

Shashi Nambisan
Institute for Transportation
Iowa State University

J. Darryll Dockstader
Florida Department of Transportation

AASHTO RAC Meeting

Baton Rouge, LA
July 15, 2013

Overview

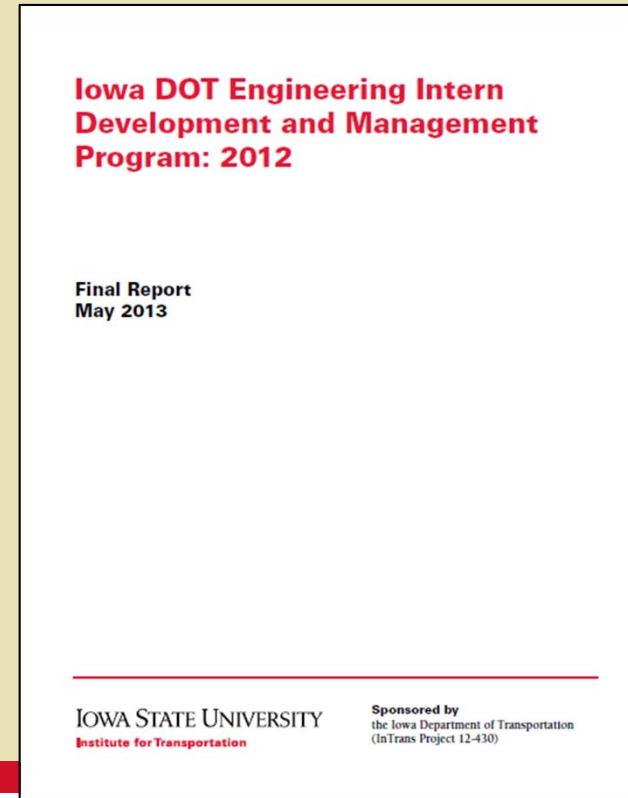
- Needs and challenges
- Past Activities
- Opportunities
- Next steps
- Summary

Needs and Challenges

- Look to the future
- Alert
- Attract
- Engage
- Excite
- Relevance
- Value proposition

Some Past Activities

- Workforce summit (Washington, DC, April 2012)
- Survey of State DOTs (Dockstader, April-May 2013)
- Iowa internship program: 2012-2013



CUTC Summit: Pathways to the Future

- Washington, DC (April 2012)
- CUTC + US DOT
- Stakeholder participation
- Goals: A Baker's dozen
- Framework for action
 - Partnering, collaboration, and information sharing
 - Stakeholder engagement and involvement
 - Industry breadth requires a broad range of efforts / approaches
- Follow-up efforts underway

Florida DOT's Survey

- Query of existing and active partnerships between DOTs and universities
- April – May 2013
- Five Questions
- Responses from 32 states

Survey Questions

- Does your agency have any of the following programs with university(s) in your state?
 - Co-Op program for students
 - Internship program/s for students
 - Volunteer program for students
 - Sabbatical program for researchers
- Please describe their respective levels of use.
- Have they been effective in developing agency workforce?
- Who manages the program/s?
- Please provide available information, include website links, procedures, applications, etc.

Summary of Survey Responses

- Programs
 - Internship: 72% (23/32)
 - Co-op: 31% (10/32)
 - Volunteer: 9% (3/32)
 - Sabbatical: 3% (1/32)
 - Other: Scholarship Program, Work Study Program, Design Squads, PE Trainee
- Level of Use varies widely
- Workforce Development
 - From untracked/informal awareness to strong correlation
- Program Management
 - HR most common

Iowa's Internship Program

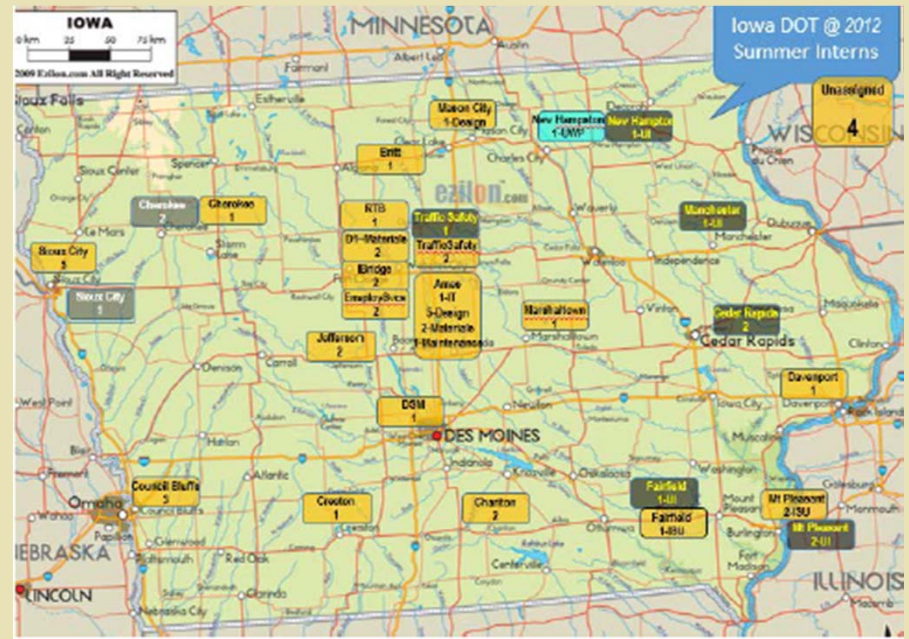
- Sandra Larson (Iowa DOT), Max Grogg (FHWA – Iowa)
- Pilot program: 2012 Summer internships
 - Engineering, Other areas
- Iowa DOT-Iowa State University / InTrans partnership
- Use of SP&R funds
 - SAFETEA-LU Section 5204(e): funds from any of five major State core programs may be used to support activities related to training, education and workforce development
- Extended partially into Fall 2012

Internship Program Overview

- 2012 Summer internship program
 - Full time effort (40 hours / week)+ overtime possibility
 - @ Headquarters and District offices across the state
 - Office-based and field activities
 - InTrans role: administration, management, faculty guidance
 - Students from several universities
 - Total 56 interns
- 2013 Fall internship program
 - Maximum of ½ time effort (\leq 20 hours / week)
 - @ Headquarters location only
 - Students only from Iowa State University
 - Total 22 interns
- 2013 Summer internship program
 - Total 80+ interns

Internship Activities

- Administrative / management
 - University, DOT
- Experiential learning
 - Student preparation / orientation
 - *Protocol for Experiential Learning*
 - *Student responsibilities*
 - *Accreditation related outcomes*
 - *Employer competency factors*
- Faculty role
- Documentation of efforts
- Supervisor / student surveys and feedback



Interns & Supervisor Feedback

- Survey of interns and supervisors
 - Very positive overall
 - Program outcomes “Great” or “OK” (80% and 90%)
 - Recommend the program to future students (>98% and 100%)
- Opportunities to work in professional settings
- Responsibilities entrusted to students
- Interactions with other professionals and practitioners
- Understanding “coursework” relative to the real world
- Gaining first-hand experience in the relationships between various aspects of transportation projects
- Learning about expectations in a professional setting
- Importance of establishing for the long term the internship and coop programs

Areas for Potential Improvement

- Improve planning and coordination between the DOT and InTrans prior to the recruitment and hiring of the interns
- Provide longer lead times for the DOT personnel and offices
- Reduce reporting requirements for the interns
- Streamline administrative and payroll matters

Contact Information

Shashi Nambisan, Ph.D., P.E.

Professor of Civil Engineering

Institute for Transportation

Iowa State University

Ames, IA 50011

shashi@iastate.edu

J. Darryll Dockstader, Ph.D.

Manager, Research Center

Florida Dept of Transportation

605 Suwannee Street, MS 30

Tallahassee, FL 32399

Darryll.Dockstader@dot.state.fl.us