

An Overview of the UTC Program

Open House at the
Institute for Transportation

October 9, 2014

<http://intrans.iastate.edu/mtc/>



History of the UTC Program

- Initiated in 1987, authorized the establishment and operation of transportation centers in each of the 10 standard federal regions
- Four additional centers added in 1991
- Shift to 10 regional centers and 23 other centers in 1998 under the Transportation Equity Act for the 21st Century



Vision of the UTC Program

Internationally recognized centers of excellence, fully integrated within institutions of higher learning, that serve as a vital source of leaders who are prepared to meet the nation's need for safe, efficient, and environmentally sound movement of people and goods.

MTC Background

U.S. DOT grant of \$2.6 million/year for 2 years

Requires 100% match (non-federal)

Grant will support research, education programs, leadership development, diversity, and outreach efforts.

5 partners

University of Missouri-Columbia (civil engineering)

University of Missouri-St. Louis (civil engineering)

Creighton University (business analytics)

Wichita State University in Kansas (industrial and manufacturing engineering)

Harris-Stowe State University

(HBU, business)

Seward County Community College

(HIS, pipeline safety)



MTC Background

- Shauna Hallmark, MTC director (shallmar@iastate.edu)
- Omar Smadi, Associate director (smadi@iastate.edu)
- Chris Williams, Associate director (rwilliam@iastate.edu)
- Judy Thomas, program assistant (jthomas@iastate.edu)
- Tim Morris, accounting specialist (tmorris@iastate.edu)
- Jen Serra, program assistant (jserra@iastate.edu)
- Alexandra Meddles, ameddles@iastate.edu,
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Goals of the UTC Program

1. Education
2. Human Resources
3. Diversity
4. Research Selection
5. Research Performance
6. Technology Transfer

MTC Research Program

Theme is data driven performance measures for transportation infrastructure condition, safety, and project delivery

Competitive RFP process:

- Relevant to MTC theme

- 100% match (allowable non-federal sources)

- Involvement of students

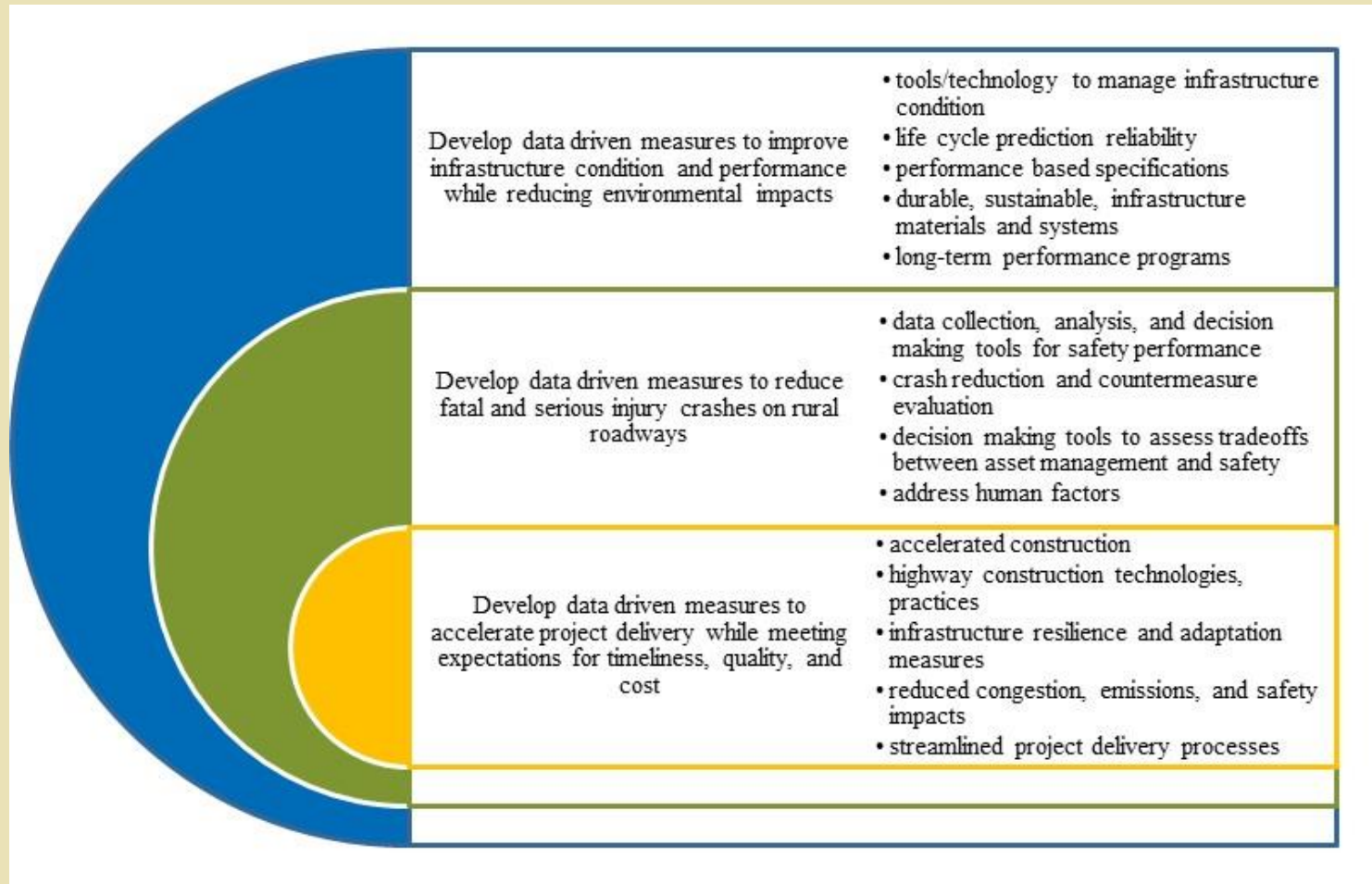
- Interdisciplinary

- Intermodal (highway, pipeline, air, etc.)



Encourage some basic, high risk research

MTC Research Program



MTC Research Program

Year 1: Competitive Research Process

1. Proposals are due November 10
2. Follow proposal requirements
 - Proposal
 - Budget
 - Matching funds commitment letter
 - One- or Two-page resumes for key staff
3. E-mail completed proposals to Judy Thomas



<http://intrans.iastate.edu/mtc/index.cfm/research/initiatives>

Potential Sources of Matching Funds

1. State funds:
 - IHRB
 - SPR program
 - ½% safety program
2. Local Agencies:
 - Cities
 - Counties
 - MPOs
 - RPAs
3. Industry Partners
4. NCHRP
5. With SHRP 2
6. In-Kind



Selection Criteria

- Relevance to USDOT's strategic goals
- External/Internal review recommendations
- Technical merit
- Collaboration between partners
- Involvement of students
- Impact of research
- Available funding

MTC Education/Workforce Development

- K-12
 - Go! e-zine magazine consists of articles, blogs, etc., designed to interest youth in transportation careers
 - Using research projects to develop (STEM)-based Curriculum Connections
 - Road Less Traveled
 - Developing transportation outreach kits for K-12
 - Distracted driving workshop (high school)



MTC Education/Workforce Development

- Graduate/Undergraduate
 - Collaborate internship partnership (pilot with Iowa DOT)
 - Undergraduate research groups
 - Transportation scholars program
 - Summer compressed study abroad
 - Travel support for conference presentation
 - Graduate seminar hosted with partner institutions
 - Graduate certificates
- Training/retraining for working professionals
 - Expanded MS in Transportation program



Transportation Scholars Program

- Maintenance of a 3.0 grade point average.
- Participation in a research project or research group.
- Attendance at the weekly transportation seminars each spring semester.
- Participation in the annual student research paper/poster contest.
- Mentorship of other students or participation in K–12 outreach activities.
- Presentation of research results at a conference or through a journal article.
- Participation in the Leadership Institute
- Participation in one or more transportation student organizations.

MTC Technology Transfer/Outreach

- Implementation
- Regional research conferences
- Coordination of training courses within region
- All research projects require technology transfer/implementation plan



MTC Leadership/Diversity

- Leadership
 - Provide leadership opportunities for students
 - Support participation in the Leadership Institute
 - Promote development of new faculty
- Diversity
 - Developing tracks for Taking the Road Less Traveled, a bi-annual STEM career conference for girls in K6-12
 - Work with HBU and HCI to recruit underrepresented students
 - Provide networking opportunities for under represented faculty and students

