

**NEW ENGLAND TRANSPORTATION CONSORTIUM  
QUARTERLY PROJECT PROGRESS REPORT**

**A. PROJECT NUMBER AND TITLE:**

NETC 14-1

Measuring the Effectiveness of Competency Models for Job Specific Professional Development of Engineers & Engineering Technicians

**B. PRINCIPAL INVESTIGATOR(S) & UNIVERSITY(S):**

Chris Ahmadjian  
UMass Amherst

**C. WEB SITE ADDRESS (If one exists):**

<http://www.ecs.umass.edu/umtc/index.shtml>

**D. START DATE (Per NETC Agreement):**

3/1/2015

**E. END DATE (Per NETC Agreement):**

12/31/2016

**F. ANTICIPATED COMPLETION DATE:**

12/31/2016

**G. PROJECT OBJECTIVES:**

The objectives of this project are:

1. To identify and review existing Competency Models (CM) and matrices that can help in the development of a DOT specific competency model
2. To perform a gap analysis on the existing CM's and matrices to create a DOT specific employee competency matrix
3. To create a CM framework for each of the NETC member states
4. To run a pilot program in one of the NETC member states
5. To determine the financial benefits (return on investment) of having a CM in place
6. To create an implementation plan and technology transfer strategy for the research results
7. To deliver a final report

**H. REPORT PERIOD:**

January 01, 2016 to March 31, 2016

**I. ACCOMPLISHMENTS THIS PERIOD:**

Work on Task 1 is complete. Specific models for DOT's were not found. We will continue to search for specific models as the research continues

Planned Schedule:

- Gaps and CM Framework – completion by July 2016.
- Pilot Program – completion by October 2016.
- Final Report – completion by December 2016.

Our subcontractor Bob LePage has started work on the gap analysis between the standard employment classifications for both technicians and civil engineers and the standard classifications in industry. Bob will also look at strategic plans and see if gaps in needed competencies exists.

He will also begin work on the pilot project in Maine

We began work on a conceptual process that would create a CM model for each DOT.

**J. PROBLEMS ENCOUNTERED (If any):**

Work is progressing well

**K. TECHNOLOGY TRANSFER ACTIVITIES:** *List any reports, papers, presentations published/presented during the report period or anticipated for the next quarter.*

**L. STATUS BY TASK:**

Task 1: Research Existing CM's and Matrices – 100% complete.

Task 2: Determine Gaps in Existing CM's – 10% complete.

Task 3: Develop a Transportation CM Framework for Each NETC Member State – 10% complete.

Task 4: Run a Pilot Program in at Least One State – 0% complete.

Task 5: Delivery of a Final Report – 0% complete

**M. PERCENT COMPLETION OF TOTAL PROJECT: 30 %**

**N. ACTIVITIES PLANNED FOR NEXT QUARTER:**

March/ Early April

- Review Strategic Plans
- Review job profile and matrix (BLS)
- Identify Competency Matrix components and resources
- Review state labor data and projections
- Draft Maine pilot tool kit for industry engagement
- Create template to Inventory education programs (use Maine as example)
- Draft workforce needs discover interview form

April / May

- Conduct leadership interviews
- Draft capacity and role survey as follow up
- Draft career pathways map
- Draft Maine pilot schedule
- Finalize CM and complete with state leader and supervisors

June

- Begin the Maine Pilot

Hold a technical committee meeting in May (in Maine)

Complete the conceptual CM process for each DOT

**O. FINANCIAL STATUS:**

**As of:** *Month, Day, Year*

**Total Project Budget:** \$ 100,000

**Total Expenditures :** \$ 19,786

**Note: This report should not require more than 2-3 pages & should be e-mailed to the NETC Coordinator so as to arrive no later than three (3) working days after the end of each calendar quarter.**