

TRAINING AND EMPLOYMENT NOTICE	NO. 31-13
	DATE May 27, 2014

TO: AFFILIATE AMERICAN JOB CENTER DIRECTORS
 COMPREHENSIVE AMERICAN JOB CENTER DIRECTORS
 WORKFORCE INVESTMENT ACT 166 GRANTEES
 DEPARTMENT OF LABOR EMPLOYMENT AND TRAINING
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 WORKFORCE INVESTMENT BOARD STATE EXECUTIVE DIRECTORS
 WORKFORCE INVESTMENT BOARD LOCAL EXECUTIVE DIRECTORS

FROM: PORTIA WU /s/
 Assistant Secretary

SUBJECT: Release and Availability of the Final Report Titled *Evaluation of the STEM Initiative*

1. **Purpose.** The Employment and Training Administration (ETA) announces the release and availability of a report titled *Evaluation of the STEM Initiative*.
2. **Background.** As noted by a number of observers, science, technology, engineering, and mathematics (STEM) fields have become increasingly central to U.S. economic competitiveness and growth. Employment in science and engineering occupations was expected to grow about 70 percent faster than employment in all other occupations through 2014. The U.S. educational system, however, struggles to meet the demand for training the needed workers. To focus on strengthening the job training system in its attempts in training workers to meet the industry needs in STEM occupations, ETA announced the “Science, Technology, Engineering, and Mathematics Opportunities in the Workforce System Initiative,” or the STEM Initiative, in 2008 as part of a broader ETA STEM action agenda.

The STEM Initiative Solicitation for Grant Applications provided an opportunity for local public workforce entities to apply for grant funding for projects designed to make the public workforce system a catalyst and leader in regional efforts to build a highly skilled and educated STEM workforce. Among the criteria for selecting grantees was the extent to which the applicants: 1) targeted expanding employment opportunities in growing STEM occupations and industries; 2) developed outreach and recruitment strategies to reach dislocated workers and/or disadvantaged youth; and 3) developed or expanded strategic regional partnerships to coordinate regional STEM workforce preparation, education, and employment activities and resources.

In November 2008, ETA awarded the following entities STEM grants of about \$2 million each:

- Eastern Connecticut Workforce Investment Board
- Central Massachusetts Regional Employment Board (now the Central Massachusetts Workforce Investment Board)
- Indianapolis Private Industry Council (now Employ Indy)
- Southwest Washington Workforce Development Council
- Workforce Solutions of the Lower Rio Grande Valley (Texas)

The period of performance for each of the STEM grantees was 36 months from January 5, 2009 through January 4, 2012.

Social Policy Research Associates was contracted to conduct an implementation evaluation of the STEM Initiative. This 3 1/2-year evaluation began in 2009 and concluded in 2012. The evaluation studied key issues regarding the implementation and operation of programs and services, strategic partnerships, and outputs resulting from the grant projects. Three rounds of site visits to each project were conducted over the course of the grant period. This study produced both an interim and a final report; the interim report was not published, but the basic findings of it were incorporated into the final report.

To investigate fully each element in the study, the evaluation team organized its inquiry around research questions grouped into four main categories: external context and public systems, project planning and partnership formation, service design and implementation experiences, and system and participant outcomes.

To describe the implementation experiences of the STEM grantees and assess their outcomes, the evaluation drew on existing data and conducted primary data collection. The qualitative component was informed by detailed site visits to each of the projects conducted at various stages of project planning and operation as well as periodic telephone conversations with project managers. The quantitative component focused on data collected by the individual grantees on the characteristics of project participants, the services provided, and the outcomes achieved by individual participants.

3. **Key Findings.** The STEM Initiative was intended to strengthen the ability of local Workforce Investment Boards and American Job Centers to play a central coordinating role in regional efforts to prepare current and future workers for jobs that will help regional STEM-related industries expand and thrive. Some of the findings of this study include the following:

- **Realization of the Required Grant Design Features**
ETA specified that STEM project designs should incorporate four general design elements – STEM Coaches, Mentoring, STEM Centers of Excellence, and Career Blueprints. Although the STEM grantees were diligent about implementing the required STEM features, projects experienced difficulty implementing their initial

mentoring designs. Four projects questioned the usefulness of career blueprints, particularly in serving dislocated workers.

- **Targeted Populations**

Although ETA did not require all projects to develop distinct services for dislocated workers and disadvantaged youth, it did encourage grantees to serve both groups. Four of the five projects attempted to serve both dislocated workers and disadvantaged youth. Especially after the economic downturn, providing services to in-school youth to encourage them to seek career pathways in STEM fields over the long-term seemed, in many cases, to be a better investment than trying to work with adults who wanted rapid employment in STEM occupations in a very difficult job market. Because each group required very different kinds of services, managers at two projects reported that their project was stretched thin trying to serve both groups well.

- **Organizations and Partnerships**

The STEM grantees developed strategic partnerships to strengthen both overall project designs and the design and delivery of services to participants. As a result of their experiences, grantees learned that it was important to involve top-level staff, build partnerships with educational institutions, and develop effective strategies to involve representatives from the business community in the targeted sectors.

- **Recruiting Individuals Interested in STEM Training**

Grantees found that many dislocated workers who sought services from the STEM projects were in financial distress. Consequently, they were hesitant to enroll in long-term training programs even when such training might have improved their long-term employment prospects. Projects responded to dislocated workers' apprehension about finding new employment by broadening the occupations in which they offered training that would help laid-off STEM workers find new jobs.

4. **Publication Description.** This final report is organized into six chapters and includes appendices and a bibliography.

- Chapter I provides an introduction and the study layout.
- Chapter II focuses on issues related to project organization and management practices, as well as the development of grantee partnerships.
- Chapter III reviews how the projects realized the four key design features promoted by ETA (STEM coaches, career blueprints, virtual STEM centers of excellence, and mentoring) and discusses how well these design features worked in practice to further project goals.
- Chapter IV describes the services developed by the STEM projects for adult and youth participants.
- Chapter V discusses data collection and analysis challenges, and describes project outcomes as measured by the participant-level data provided by the projects.
- Chapter VI synthesizes findings and presents conclusions about key implementation challenges, lessons learned, and strategies for sustainability.

- Appendix A contains the protocols used in the Round 3 site visits.
- Appendix B provides detailed profiles describing the design, implementation, and outcomes of the individual STEM projects.

5. **Inquiries.** To view an abstract of this publication, as well as to download the full report, visit the ETA Research Publication Database Web site at:
<http://wdr.doleta.gov/research/keyword.cfm>.